CRM-Project 2013

The 4th Module

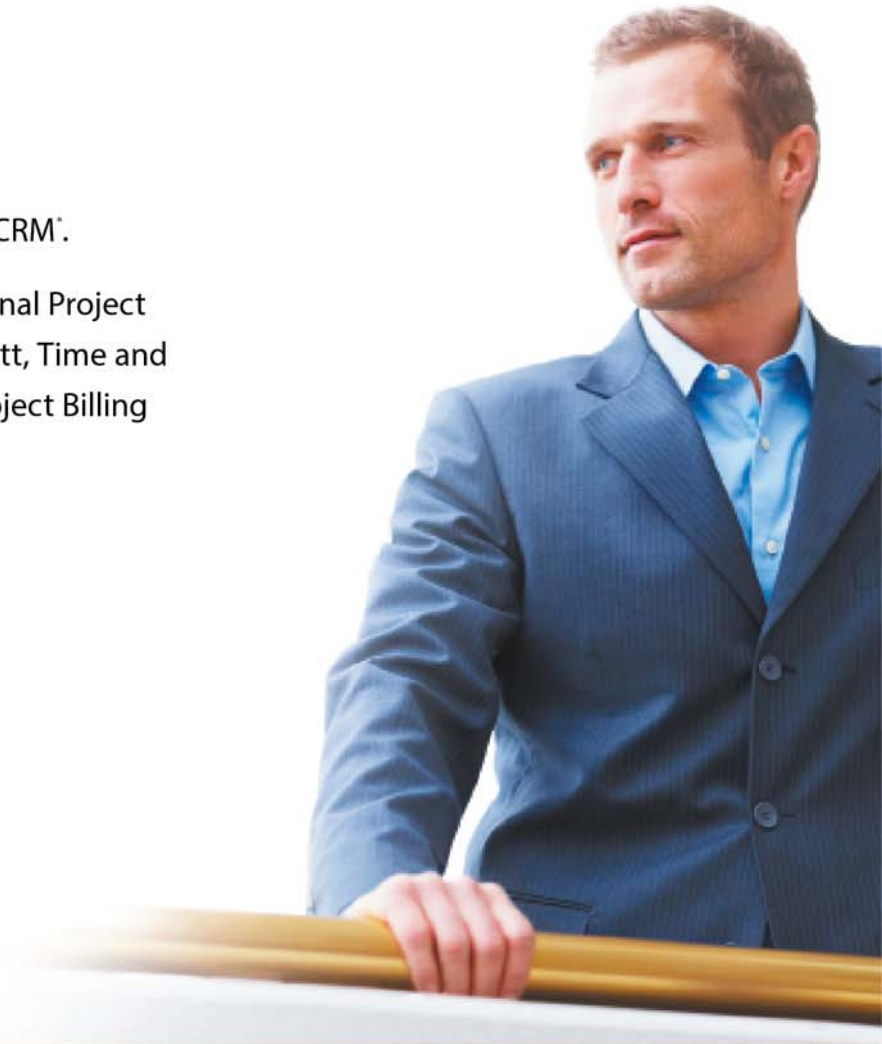
Project Management in Microsoft Dynamics™ CRM

Sales	Marketing	Service	xRM1

Microsoft Dynamics CRM

CRM-Project is the 4th Module for Microsoft CRM®.

The solution covers all functions for professional Project Management from Project Planning with Gantt, Time and Work Entry and Resource Management to Project Billing by time sheets up to mobile apps.



CERTIFIED FOR Microsoft Dynamics CRM 2011

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0 Before you start

0.1 Foreword

CRM-Project is the 4th module for Microsoft Dynamics CRM, supporting project management requirements and processes. We recommend that the reader of this manual has basic knowledge of project management and is proficient in working with Microsoft Dynamics CRM.

If you don't meet these requirements, we recommend that you familiarize yourself with these topics beforehand, as this will help you work more efficiently and sensibly with CRM-Project.

***Note**: The 4th module for project management is built upon all Microsoft CRM standards, particularly in regards to forms, views and rights and roles. Should you find that information, elements or functions are not as they appear in the document, please ensure that the CRM user you are using has the required rights and that the required basic settings are in the system.*

0.2 Up-front information

You should have the following information available before planning a project in CRM-Project:

- The name of the project
- How much time (in man-days) and money is to be invested
- How much project structure you require, so as not to lose track
- The project manager
- The sponsor (customer, internal, etc.)
- When is the project being run?

We wish you success and good projects - your xRM1 team

0.3 How much structure makes sense?

Below are some tips on project structuring and resource planning from CRM-Project team experts.

0.3.1 Project detailing

The Microsoft CRM-Project Management module enables you to freely define the project structure scope. This is why we would like, at this point, to give you some advice concerning the question "Which scope makes sense for which project"?

Risk projects: For high-risk projects, it makes sense to apply a very detailed project structure, especially in those areas which may result in a high level of risk.

Repeat projects: Lowest structure scope; small structure is more beneficial in this instance, as the project managers may feel confined otherwise.

Large-scale projects: Large-scale projects generally require a higher structure scope. Think about how often project areas (sub-projects, work packages, etc.) change or will potentially change. Every change must be managed. You have to ask yourself, 'How much time exactly do I have for this? '

Clarify beforehand any questions you may have to answer during the project and after completion. If you can answer all these questions, you don't need any more detail.

0.3.2 Resource planning

Here are a few more tips on resource planning, particularly in regards to organization-wide issues:

1. Initially plan your projects with a few project nodes (at most the project and an additional level underneath; ideally only a single node, i.e. "The project").
2. Assign this skeletal project structure the required resources, in accordance with your preferences (required, cost-effective, available, congenial resources, etc.)
3. Have the project approved by your supervisor, if required.
4. Incorporate approval changes, when required. Planning a minimally detailed level beforehand means it should be easier to apply changes, then when having planned too much detail.
5. Implement more detail afterwards:
   a. Structure the project with more depth and in more detail.
   b. Reassign resources assigned to the main node to the project sub-nodes.
   c. This automatically gives more structure to assigned project work for team members and correlates the work to defined time periods.

6. Keep your project up-to-date by making system changes that coincide with the current situation.

0.3.3 Up-to-date accuracy within the project

Think about the 'level of up-to-date accuracy' you were able to retain in recent projects during the course of those projects.

If it was "difficult", then:

- Leave more time for project planning and project management,
- If this is not possible, plan in less detail.

Smaller detailing is better than incorrect detailing.

0.4 Tips for efficient time entry

Below are a few tips from practical experience, and from our customers, on entering time and services within projects from day to day.

- Update data immediately - especially when you are entering many processes every day. The benefits: Nothing is forgotten, your colleagues have an up-to-date overview at all times and you save on tiresome reconstruction work at the end of the day/week/month. The project is immediately documented at the same time.
- Keep your calendar as such, that you can show it to a third party (at any time) without having to explain the entries. This way, processes, time and document entry take care of themselves (in your projects); you won't need to re-formulate process descriptions every time you make an entry. You also benefit from an improved overview of your daily plan.
- Make entries that pertain to more than one project (as well as repeatedly to these projects). Don't forget to correctly distribute the required time.

0.5 Terminology

0.5.1 Work

In CRM-Project, the term 'work' pertains to the actual work time of resources within a project or a task. Work is specified in hours or man-days (MD). The duration of personal days can be individually entered into settings; 8 hrs is the default standard.

All fields containing term 'MD' in CRM-Project manage project work (projected, sold and entered).

0.5.2 Duration

'Duration' defines the overall time period in which work is carried out for a project. In CRM-Project, the duration is specified with date values defining the start and end of the duration. The duration exists in different forms within CRM-Project; scheduled duration and actual duration (for e.g.)

0.5.3 Costs

'Costs' define the monetary expenditure the project creates within your organization. These are only internal costs, in different forms (from personnel-related expenditure, material usage, travel, etc.)

0.5.4 Budget

The 'Budget' represents the projected cost of the project. CRM-Project allows you to plan the available overall budget for a project, as well as split a budget for personnel costs and other costs (material usage, travel, etc.)

0.5.5 Revenue

Revenue is a calculated amount based on the activities/work and daily rates of a project order. CRM-Project provides the values for projected, achieved and invoiced revenue at the corresponding daily rates. As a result, a fully automated calculated forecast is available.

0.5.6 Project nodes

Projects are made up of massive amounts of information. Project structures are comprised of many elements, phases, subproject, work package, and specific activities. To ensure a uniform description, CRM-Project uses the term "Project node" on all levels of the project structure. A project node is an element within the project structure. With additional parameters, such as the definition of the level, the project node becomes a project, a phase, a subproject, a work package, or a milestone.

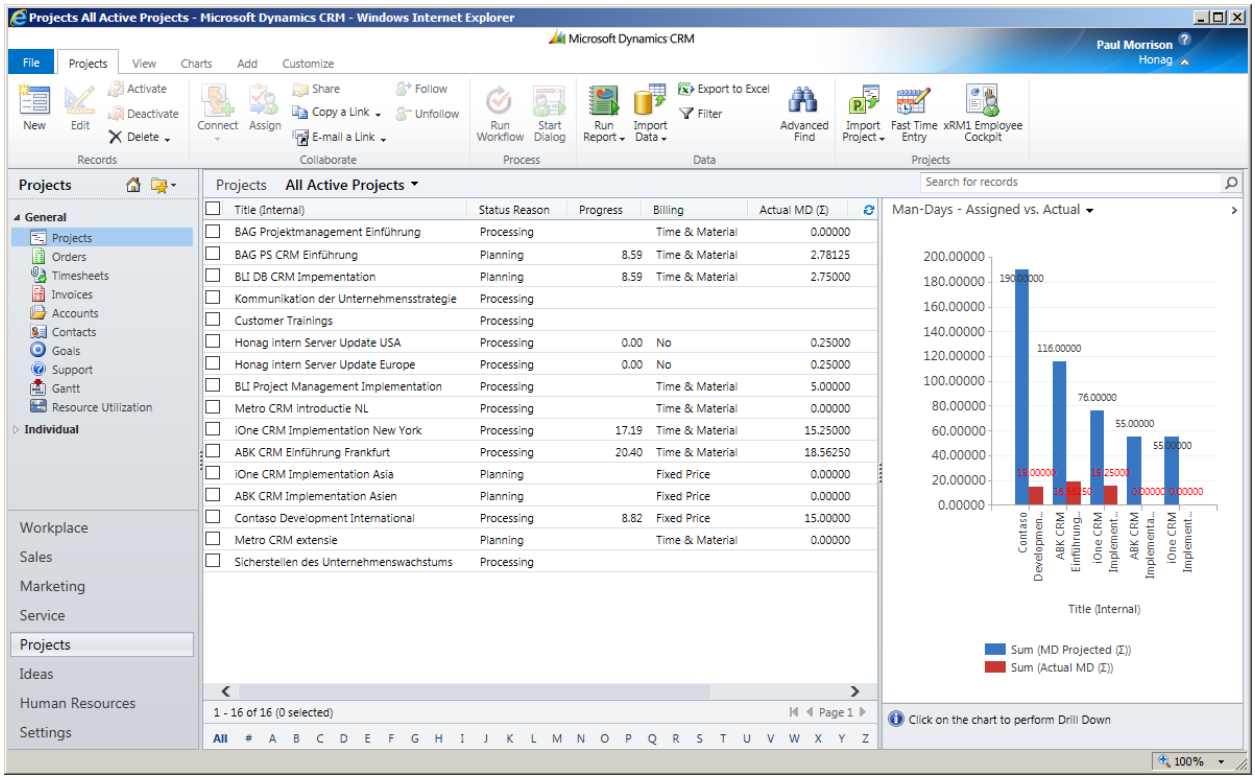
0.6 System requirements

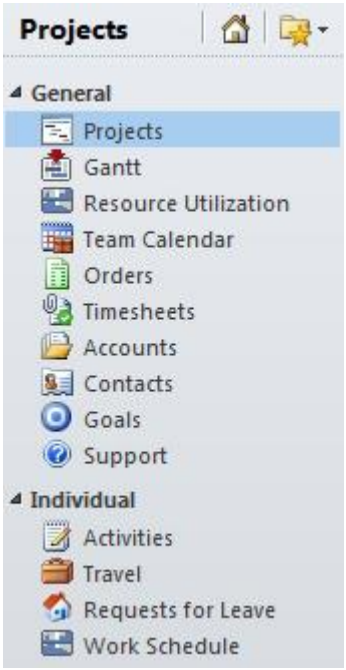
In order to use **"*CRM-Project*"**, several system requirements must be in place. They can be found in the "Getting started guide" on our website http://www.xRM1.com.

1 The Project Management Module in Microsoft CRM

Below is an overview of the areas and functions of the 4th module for project management in Microsoft CRM.

1.1 Project Management functions in Microsoft CRM





The 4th module for project management is in the main menu item immediately below the 3rd module for service management. This menu is used to access the central functions of Project Management, divided into subcategories "General" and "Individual".

1.1.1 Projects

The "Projects" option is used to access the projects in the system. Different project views simplify the organization. This area includes standard Microsoft CRM functions such as "New" and "Export to Excel" (related to the particular projects). Please refer to sections 2 and 4, for more details on project creation and structuring.

1.1.2 Gantt

The "Gantt" menu option is used to access the organization-wide Gantt chart. It provides an overview of the currently running projects within your organization. Please refer to section 0, for more information on the organization-wide Gantt chart.

1.1.3 Resource utilization

Resource utilization provides an overview of all resources and services within the organization for a selected time period. Please refer to section 8.2.1 for more details on the functions in resource utilization and the information displayed.

1.1.4 Team calendar

The 'Team Calendar' for integration of the 3rd module (Service) enables detailed service planningover the resources available in the system. Of course, the here planned information are also available in all planning functions of the 4th module.

1.1.5 Orders

The 'Orders' area enables direct access to the orders in the system.

1.1.6 Timesheets

The 'Timesheets' area shows the timesheets created for the projects; please refer to section 12.2.3 for more information on timesheets as well as the respective functions available.

1.1.7 Accounts

The 'Accounts' menu option provides direct access to all account records stored in the system.

1.1.8 Contacts

The 'Contacts' area enables direct access to the contact records in the system.

1.1.9 Goals

The 'Goals' area shows all goals stored within your organization; please refer to section 5.5.1 for more information on using goals for project controlling.

1.1.10 Support

The 'Support' menu option is used to access the 4th module's support portal in Microsoft CRM. It gives you direct online access to the internet support portal of CRM-Project. This portal is being updated and enhanced continually to provide you with up-to-date information on all aspects of the 4th module, as well as tips and tricks on project management.

1.1.11 Activities

The 'Activities' area provides you with access to your own CRM activities and the activities of other users.

1.1.12 Travel

This area displays travels which are planned by you or other users or which have already taken place. You also have the possibility to create new travels.

1.1.13 Requests for Leave

The 'Requests for Leave' menu provides access to all leave requests created by you and the option to create new requests for leave.

1.1.14 Work schedule

The individual 'Work Schedule' provides a detailed view of project work, appointments and activities pertaining to the user. Please refer to section 8.2.3 for more information on the work schedule.

1.1.15 Fast Time Entry

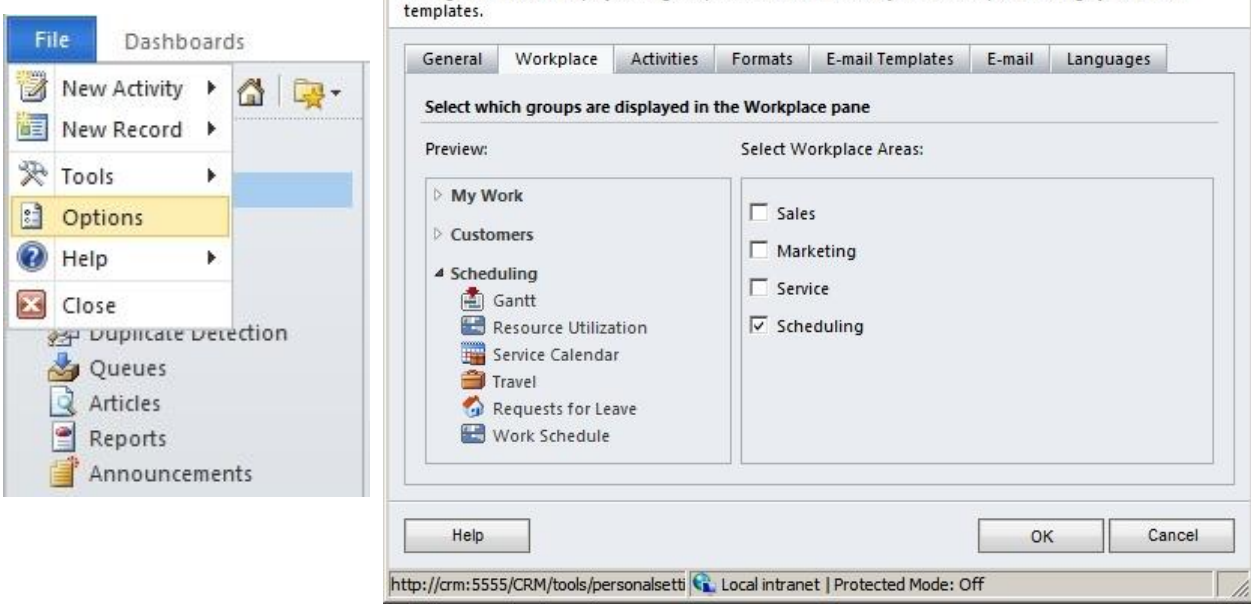
The 'Fast Time Entry' function is located on the top menu bar, in many Microsoft CRM views. A fast time entry mask is used for entering work hours. Please refer to section 9.2 for details on the Fast Time Entry function.

1.1.16 Employee Cockpit

The ‘Employee Cockpit” function is located on the top menu bar, in many Microsoft CRM views. This function is used for entering working hours. Please refer to section 9.3 for details on the Employee Cockpit function.

1.2 Using project management functions at the individual workplace

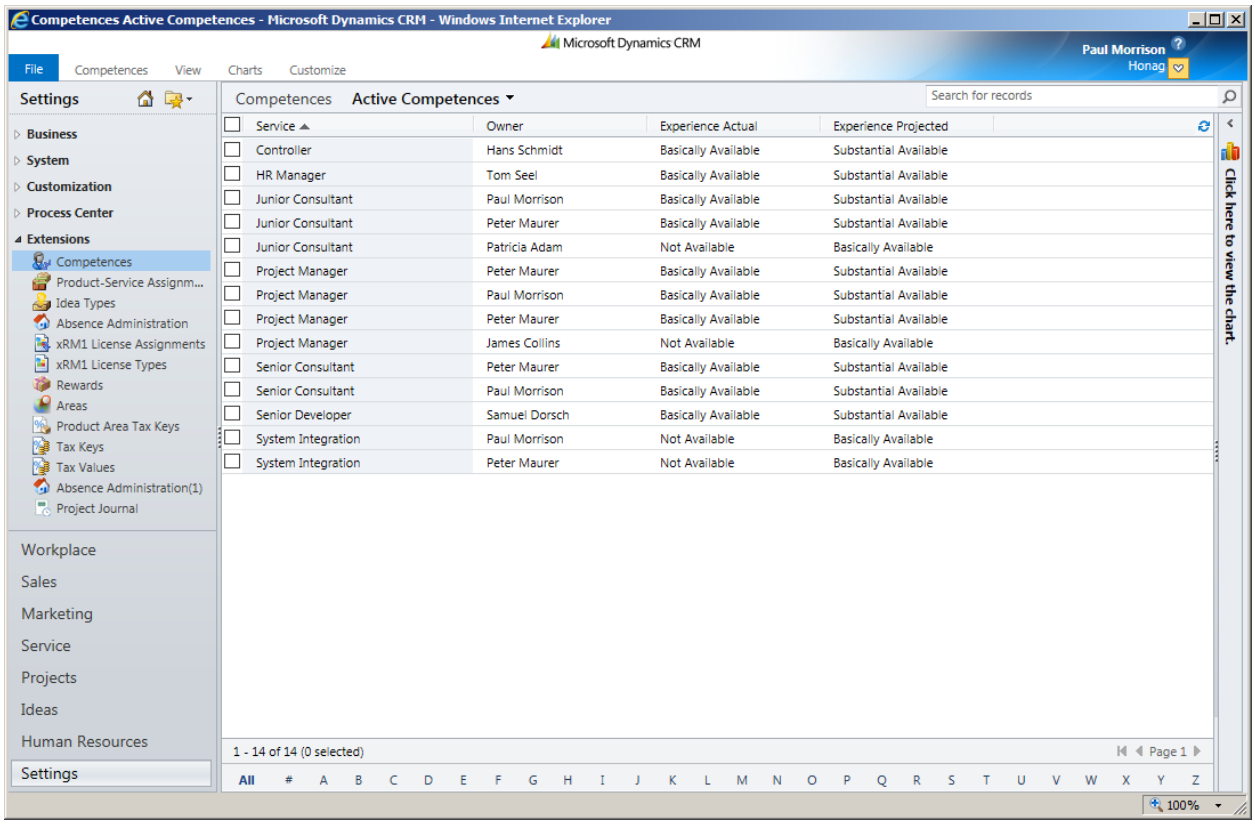
Selected functions for projects, plannings and work organization can be displayed or hidden, at the individual workplace of every user.



The “Options" menu item enables you to adjust these settings individually for every user. Selecting workplace "Scheduling" shows the project-related functions in the workplace of the relevant user:

- Gantt
- Resource Utilization
- Service Calendar
- Travel
- Requests for leave and
- Work Schedule

1.3 Project management settings in system administration



In the "Extensions" area of the main settings menu you will find some functions assigned to the Project Management module.

1.3.1 Basic settings for the project management module

Basic settings for the Project Management module are configured within the solution. Please refer to section 15.1 for details on this.

1.3.2 Competences

This function allows efficiency factors to be stored for services that can be run by resources; skills as well as available and planned experiences and corresponding measures for further education. Please refer to section 7.3 for details on this.

1.3.3 Product-Service Assignment

In the 'Product-Service Assignment' area, available capacities per day can be entered for products and services available within the organization. Please refer to section 16.2 for details on this.

1.3.4 Areas

An entity „Area" represents the geographical locations and their characteristics. Please refer to section 14.1 for details on this.

1.3.5 xRM1 License Assignments

xRM1 License Assignments as a viewable list of the current license assignments. Please refer to section 15.9 for details.

1.3.6 xRM1 License Types

xRM1 License Types shows an overview of the existing license types as well as their corresponding validity dates. Please refer to section 15.9 for details.

1.3.7 Absence Administration

Absence Administration deals with employee absences, in regards to sickness and other absences. Public holidays and business closures can also be managed. Please refer to section 8.1.2.2 for details.

1.3.8 Project Area Tax Key, Tax Keys and Tax Values

Project Area Tax Key, Tax Keys and Tax Values are prepared for the tax configuration. Please find detailed information in section 12.1.7.

2 Project creation

The 4th module enables you to create and structure your projects directly in the Microsoft CRM Dynamics interface, which you are (already familiar with. Phases, subprojects, milestones and work packages can be defined and organized individually. All data available in your CRM system can be used for project management.

2.1 Creating a project

Begin by starting Microsoft CRM. It is up to you whether you use the Outlook Client or Web client for access – CRM-Project works with all interfaces. Several CRM-Project functions are also available to you via Microsoft CRM mobile clients and on your smartphone. In the main menu, click Projects and then New.

2.2 Project information

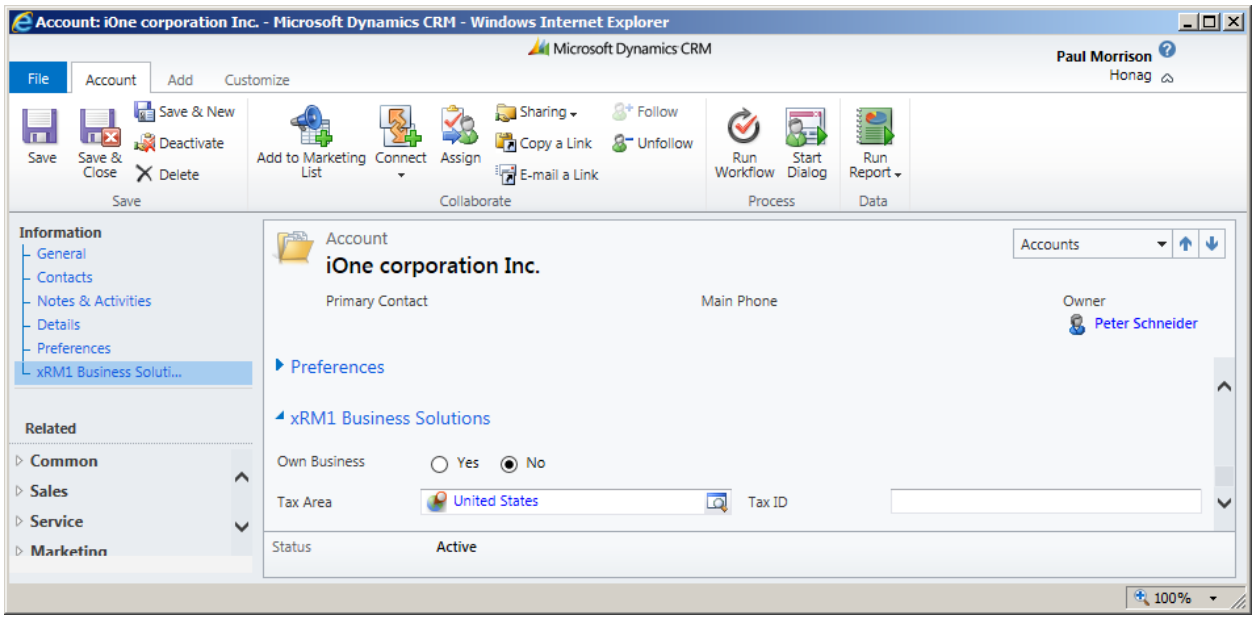
Complete the fields which you consider as important. Entering information can be optional or mandatory, depending on complexity and method.

Depending on the project type, you can decide whether or not you have information such as sold man-days (“MD Sold”) or classified risk (pick list “Risk”) available at all, or if they are stored in the project. The only mandatory fields are the Project Manager, the Account (for which the project is being run) and the internal project title.

2.3 Distinction between internal and external projects

The account for which the project is being run is used by CRM-Project to differentiate between internal and external projects.

Additionally, create relevant accounts in Microsoft CRM, for all your own and associated companies and cooperation partners. "Own Business" enables you to define for every account individually, whether it is a business within your own organization or not. By default, it is always set to "No".



If for an account in the respective lookup field "Account", the "Own Business" is set to “Yes” (in the project you’ve selected), CRM-Project classifies this project as "internal project". Accounts which are set to "No" are classified as an "external project"

2.4 Information automatically updated

Some values within projects are calculated by CRM-Project automatically. This is sometimes done for the respective project part, sometimes even across different project levels.

All fields of the types "Work" and "Costs", are always updated automatically when there is a time entry. Additionally, the "Last Activity" date field is updated for the entire project tree after every entry.

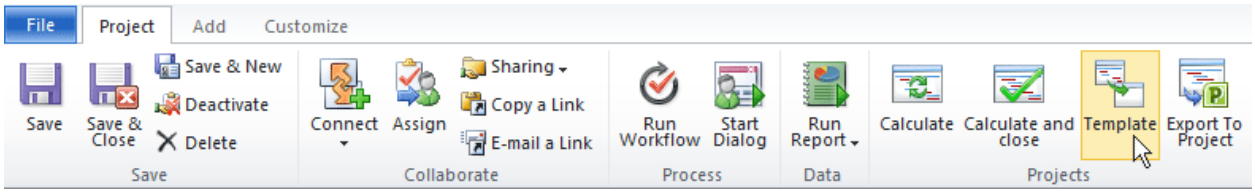
The project progress (in %) is also updated automatically after every entry (depending on the setting for the relevant project node).

All “Revenue” fields are also updated automatically, except for the “Revenue invoiced” field. These fields are only updated when a project is recalculated. The "Calculate" function is available for this in the ribbon bar, for every project.

3 Using project templates

In addition to creating projects manually from the Work Breakdown Structure and Gantt chart, CRM-Project provides the ability to create and store project templates and to use these to create new projects.

The Templates function is available on the menu bar in every project.



The Template function is available for users with "CRM-Project Enterprise" and "CRM-Project Professional" rights. Only users with this role can set projects to the active state 'Template in Progress', as well as use the template functions (create, change and template approval, for e.g.)

Creating projects from an approved template is available for users with the "CRM-Project Project Assistant" and "CRM-Project Project Manager" roles. Templates can also be used for projects created from an active order. The system will combine the information from the order with those from the template. A project is then created out of these information.

***Tip**: You can use project templates as the basis for an entire project. You can also create templates for project parts or modules of your organization and then, from a template "kit", piece together a new project from different project templates. Please refer to section 6.1.2 for details on structuring and organizing projects.*

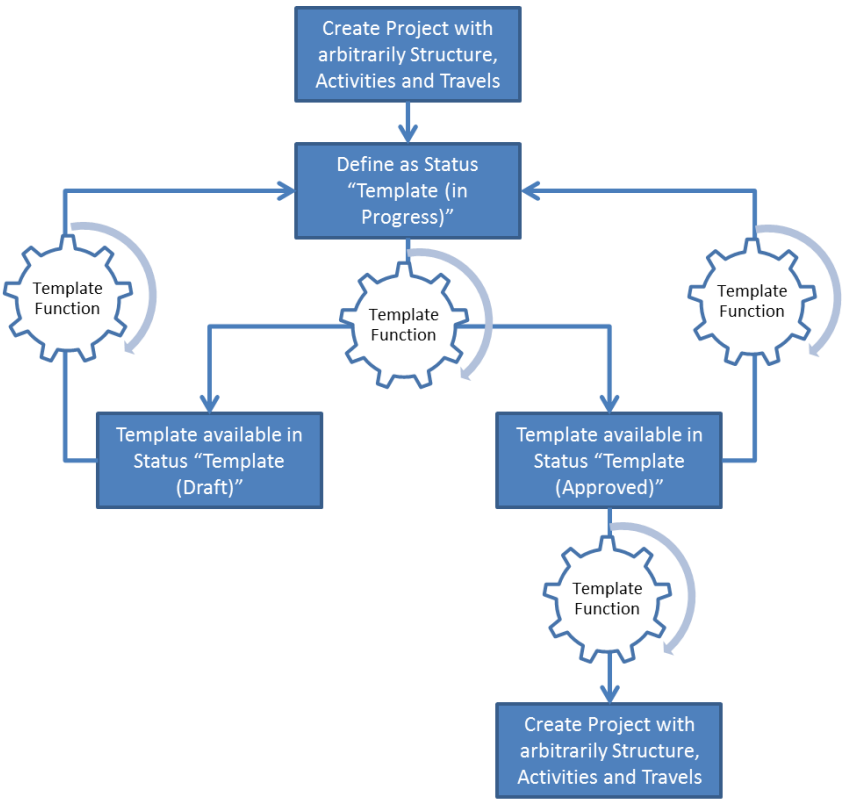
***Note**: Please be aware, that – when using the template functionality – creating project nodes with field level security fields is only possible if the user has write permissions.*

3.1 Basic functionality

The difference between a project template and a project is the status reason assigned to the project nodes. The following status reasons are available for project templates:

- Template in Progress (active state)
- Template (draft) (inactive state)
- Template (approved) (inactive state)

The different status reasons a project template can have enable an approval and revision process for templates. Shown below are the basic processes in template creation.


Create Project with arbitrarily Structure, Activities and Travels
Define as Status "Template (in Progress)"
Template Function
Template Function
Template Function
Template available in Status "Template (Draft)"
Template available in Status "Template (Approved)"
Template Function
Create Project with arbitrarily Structure, Activities and Travels

The following functions for template processing are available (depending on the project status reason selected or project template):

Project has state	Possible function(s)	Comment
Active: **Processing or Planning**	No template function possible	The user receives a message that projects cannot be processes in this state.
Active: **Template in Progress**	Project templates changed to "Template approved" or "Template draft"	Selecting the relevant function will set the entire project template to "Inactive", with the correlating status reason (similar to the "Calculate and Close" function).
Inactive: **Template draft**	Templates changed to "Template approved" or "Template in Progress"	Selecting the "Template in Progress" option activates the entire project template; meaning subsequent revisions can be done.
Inactive: **Template approved**	Creating a new project from this template or changing the template to "Templates in Progress".	When creating a project from an "approved template", the user is asked for specific settings for the new project.
Inactive: **All other statuses**	No template function possible	The user receives a message that projects cannot be processes in this state.

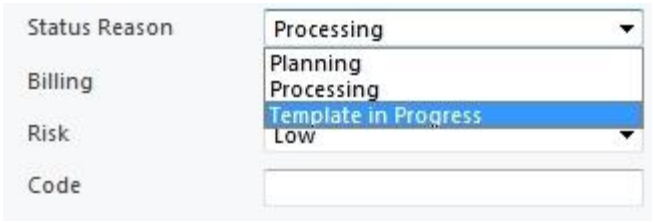
***Tip**: You can use the different status reasons to provide support for the approval and revision process (such as with workflows and activities), and to adapt your business processes.*

3.2 Creating a project template

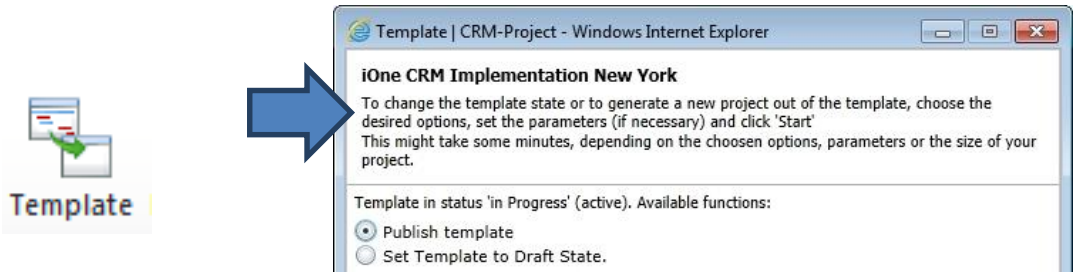
A project template is created like creating a project (please refer to section 2 for details).

Add a project structure to the project with any width or depth (via WBS or Gantt) and store activities and travels in the project. You can already assign project nodes to defined users in the template (if they're responsible for these activities in general).

Then, set the status reason to "Template in Progress" to label the project as a template.



Setting the status reason on the highest project level determines this to all project nodes underneath. You are now able to use the template function with this template.


Template
Template | CRM-Project - Windows Internet Explorer
iOne CRM Implementation New York
To change the template state or to generate a new project out of the template, choose the desired options, set the parameters (if necessary) and click 'Start'
This might take some minutes, depending on the choosen options, parameters or the size of your project.
Template in status 'in Progress' (active). Available functions:
Publish template
Set Template to Draft State.

Changing the template to status reason '**Template Draft'** ends the template processing. The project template is changed to an inactive state to prevent other users from:

- Using the project template to enter services
- Making any changes to the project template
- Using this project template for creating new projects

If the template is already complete and ready for the organization to use, select "Publish template". This changes the template to state reason '**Template Approved'**. This is also an inactive state, meaning no changes can be made to the template. From this point on, a project can be created from the template via the template function.

Separate views for templates are available in the menu for projects. The template is displayed in the view provided (depending on status reason selected).

3.3 Creating a project from a template

To create a template from a project, simply select the required project template under the "Templates approved" view and run template process.

There are various automation functions available in the project creation process, to help you create a project as accurately as possible.

Firstly, you can define a ***"date"*** which will be used as a start or end date for the planned project. With this date, the template function pushes all dates forward (for start date) or backward (for end date) for all nodes and activities in the template.

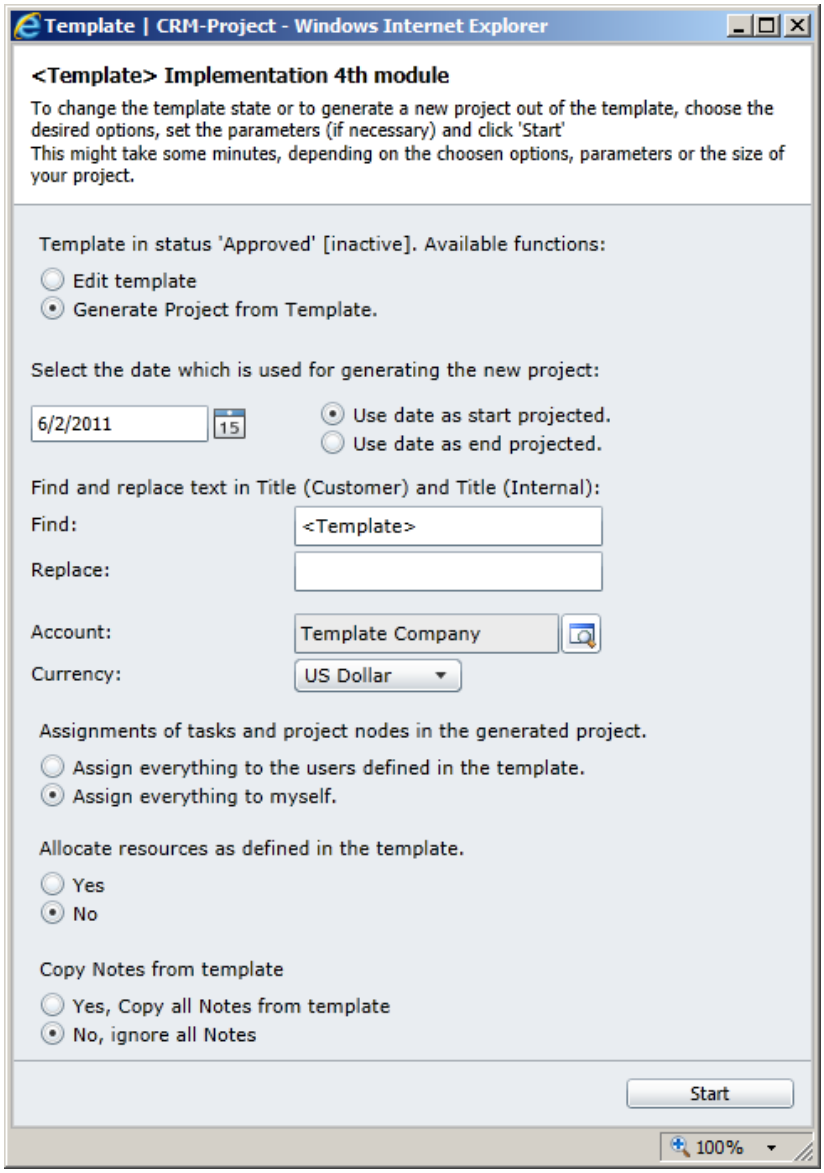
The title of the template (both internal and external), as well as all activities, can be filled automatically with project-related information with the Find and Replace. Specify in the ***"Find"*** field the term you have entered as a placeholder in the nodes and template activities. Specify in the ***"Replace"*** field the term(s) which will be used for replacement.

Select the ***"Account"*** which the newly created project is assigned to.

Select the ***"Currency"*** of the new project.

Select whether all **project parts and activities** are assigned to the users defined in the template or the user running the template function is assigned all project elements. Then, project parts and activities can be distributed manually if required.

If resources have already been defined in the template via the planning table, the **distribution of work** to these resources can also be used for the new project.

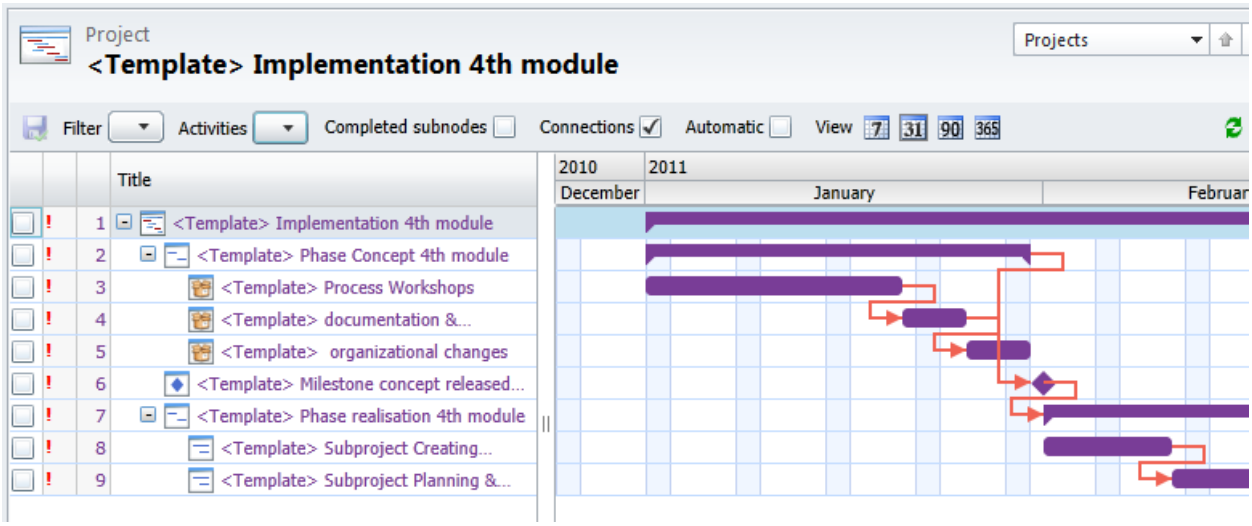

Template | CRM-Project - Windows Internet Explorer
<Template> Implementation 4th module
To change the template state or to generate a new project out of the template, choose the desired options, set the parameters (if necessary) and click 'Start'
This might take some minutes, depending on the choosen options, parameters or the size of your project.
Template in status 'Approved' [inactive]. Available functions:
Edit template
Generate Project from Template.
Select the date which is used for generating the new project:
6/2/2011
Use date as start projected.
Use date as end projected.
Find and replace text in Title (Customer) and Title (Internal):
Find:
<Template>
Replace:
Account:
Template Company
Currency:
US Dollar
Assignments of tasks and project nodes in the generated project.
Assign everything to the users defined in the template.
Assign everything to myself.
Allocate resources as defined in the template.
Yes
No
Copy Notes from template
Yes, Copy all Notes from template
No, ignore all Notes
Start
100%

Selecting Start begins the 'project from a template' process. Your predefined project will be generated from the template.

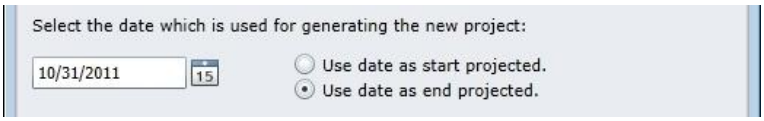
3.4 Date recalculation clarified

For realigning dates, all dates are calculated anew based on the date defined in the template mask. The following example below shows how the dates are recalculated and pushed back.

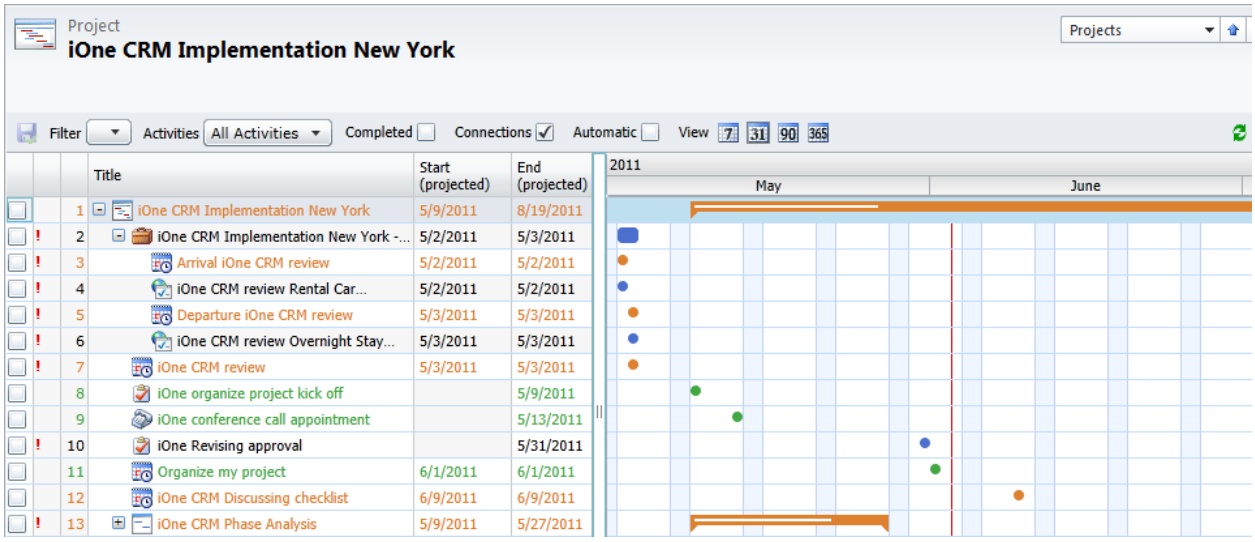
The template below has been defined. The runtime is from June 1st – 30th (i.e. 30 days). There are some activities within the first three days; afterwards, there are two project parts with 8 or 16 days).



Generating a project from this template with the following setting…


Select the date which is used for generating the new project:
10/31/2011
Use date as start projected.
Use date as end projected.

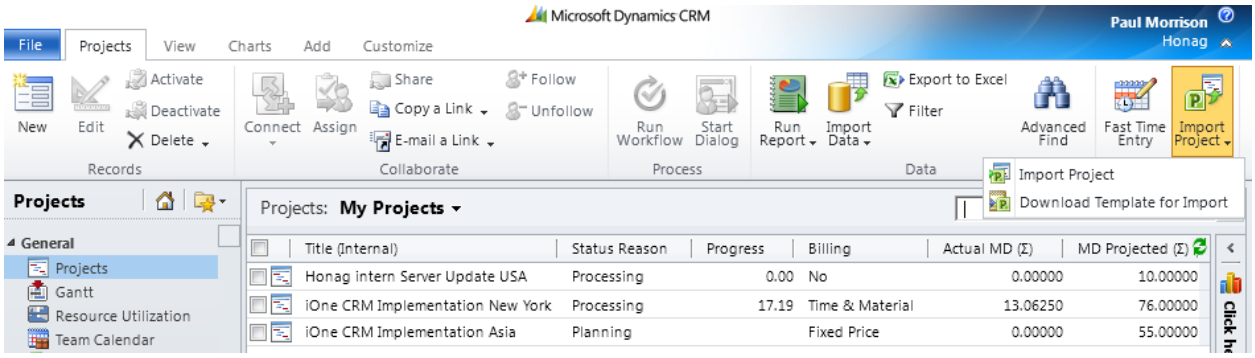
… creates the following project:



4 Microsoft Project import & export

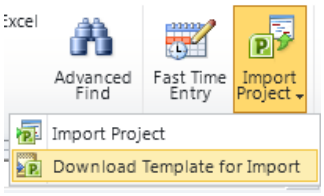
The Microsoft Project interface provides functionality for exporting project plans to Microsoft Project and for creating new projects based on Microsoft Project project plans.

4.1 Microsoft Project import

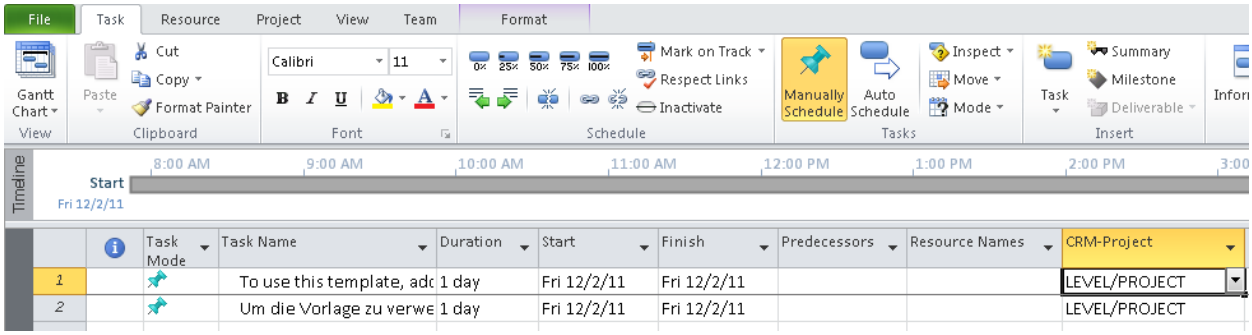


4.1.1 Prepare import

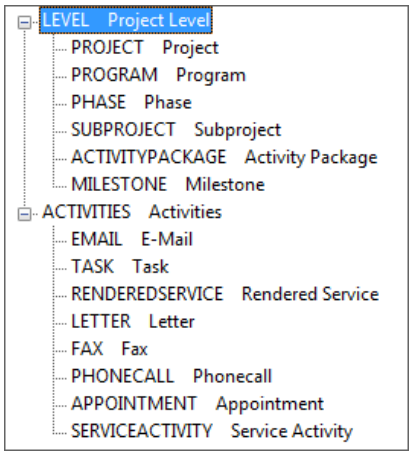
To import a Microsoft Project project plan in CRM-Project, the plan has to first be based on CRM-Project's Microsoft Project import template. Therefore, you must first download the Microsoft Project import template from Microsoft CRM.



The system creates a template for Microsoft Project as an XML file. Save this file and open it with Microsoft Project.



Use this template for planning and structuring your project in Microsoft Project. Choose ***"Add new Column"*** to display the column "***Outline 1 (CRM-Project)***". Through this classification, you can define whether each Microsoft Project task is a project node or a Microsoft CRM activity. Furthermore, you can select the project node level and activity type.



The following levels are available for classifying project nodes:

- Program
- Project
- Phase
- Subproject
- Activity Package
- Milestone

The following activity types are available for classifying activities:

- E-mail
- Task
- Rendered Service
- Letter
- Fax
- Phone call
- Appointment
- Service activity

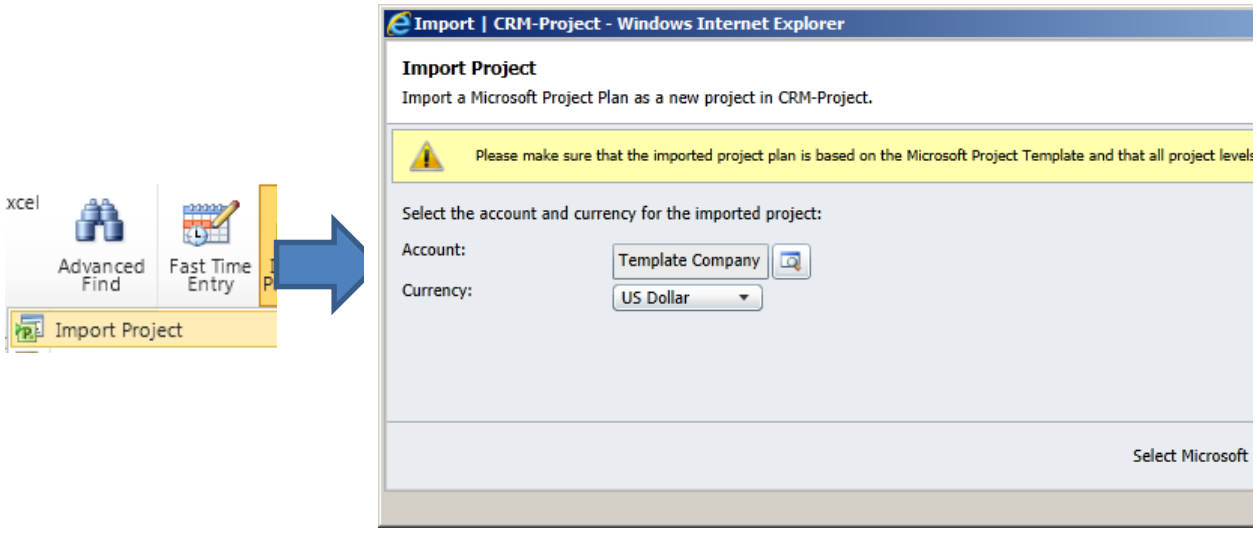
Once you have finished structuring your project, save the project plan in Microsoft Project XML format. The project plan is now ready for ***CRM-Project*** import.

***Note**: CRM-Project is able to import Microsoft Project project plans only if they are based on the import template and if they are saved as Microsoft Project XML format!*

4.1.2 Process import

To import your prepared project plan, select "Import Project" in the ribbon menu bar. Choose the account which will be the customer for the new CRM-Project project. Then, choose the project's currency. In most cases, an account will be your company or a standard account in your CRM.

Select ***"Import"*** to select the Microsoft Project file. The project will then be created in CRM-Project and be available as a "Planned Project".

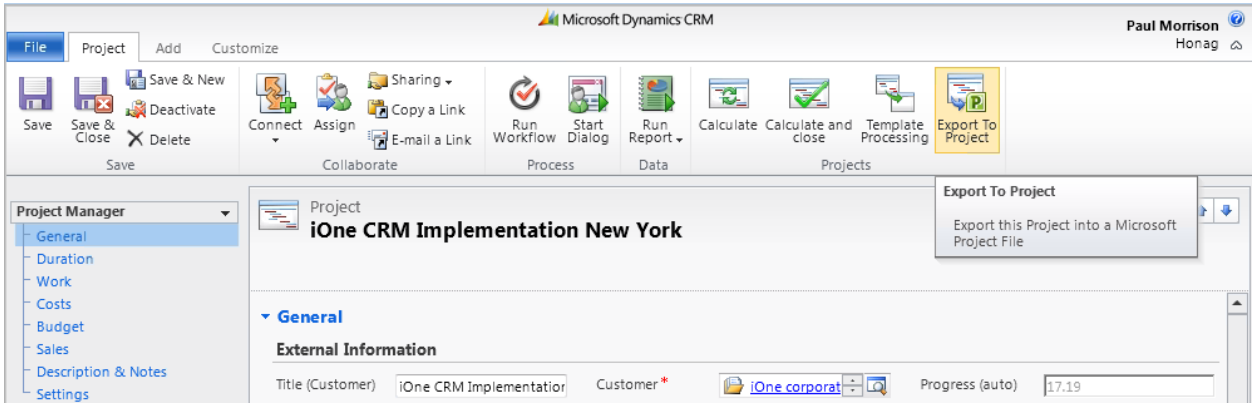

xcel
Advanced Find
Fast Time Entry
Import Project
Import | CRM-Project - Windows Internet Explorer
Import Project
Import a Microsoft Project Plan as a new project in CRM-Project.
Please make sure that the imported project plan is based on the Microsoft Project Template and that all project levels
Select the account and currency for the imported project:
Account:
Template Company
Currency:
US Dollar
Select Microsoft

While processing the import, the following information is transferred from the Microsoft Project Project plan to CRM-Project:

Information in Microsoft Project Plan	Import assigns information to the following CRM field for	
	Project nodes	**Activities**
Task Name	Title internal and Title customer	Subject
Notes	Description	Description
Start	Start projected	Start Time (only Appointment and Service Activity)
Finish	End projected	End Time (only Appointment and Service Activity) Due (all other Activity Types)
Work	MD projected (1 MD = 8 hours)	Work
Predecessor	Predecessor	-
Parent Task	Parent Project Part	Regarding
CRM-Project Classification	Level	Defines the Microsoft CRM Activity Type

4.2 Microsoft Project export

To export a project from CRM-Project to Microsoft Project, open up the project intended for export and click on "Export to Project" on the ribbon bar.



CRM-Project processes the project structure as a Microsoft Project XML file and provides this file for download.

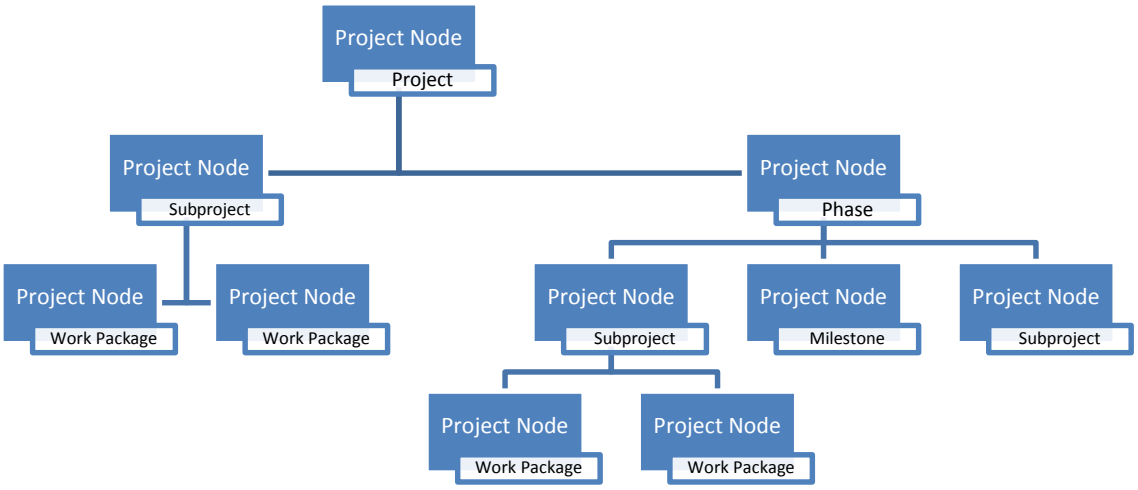
Fields that are exported by CRM-Project to the Microsoft Project file match the import fields (for project nodes as well as for activities).

***Tip**: You can also export a part of a project to Microsoft Project. Simply open the respective project node in the Gantt chart or the work breakdown structure and select the "Export to Project" function in that project node. CRM-Project exports only the project structure that lies underneath that project node.*

5 All about the project

The 4th module enables the same information to be entered and managed on every level within a project. Thus, projects can be nested. The "Level" allows each project node type to be specified (subproject, phase, work package, etc.)

The benefit: Projects of any size, depth or width can be structured. The diagram below illustrates how individual project nodes can be arranged in relation to each other.



Individual levels within a project are labeled consecutively as project nodes. A lot of information within the project structure is automatically passed from the top (main node) to the project nodes beneath (e.g. 'assigned account'). Other information, such as man-days entered or costs accrued, is automatically passed on by lower project nodes to nodes above, and tallied in the process where appropriate.

5.1 Project information

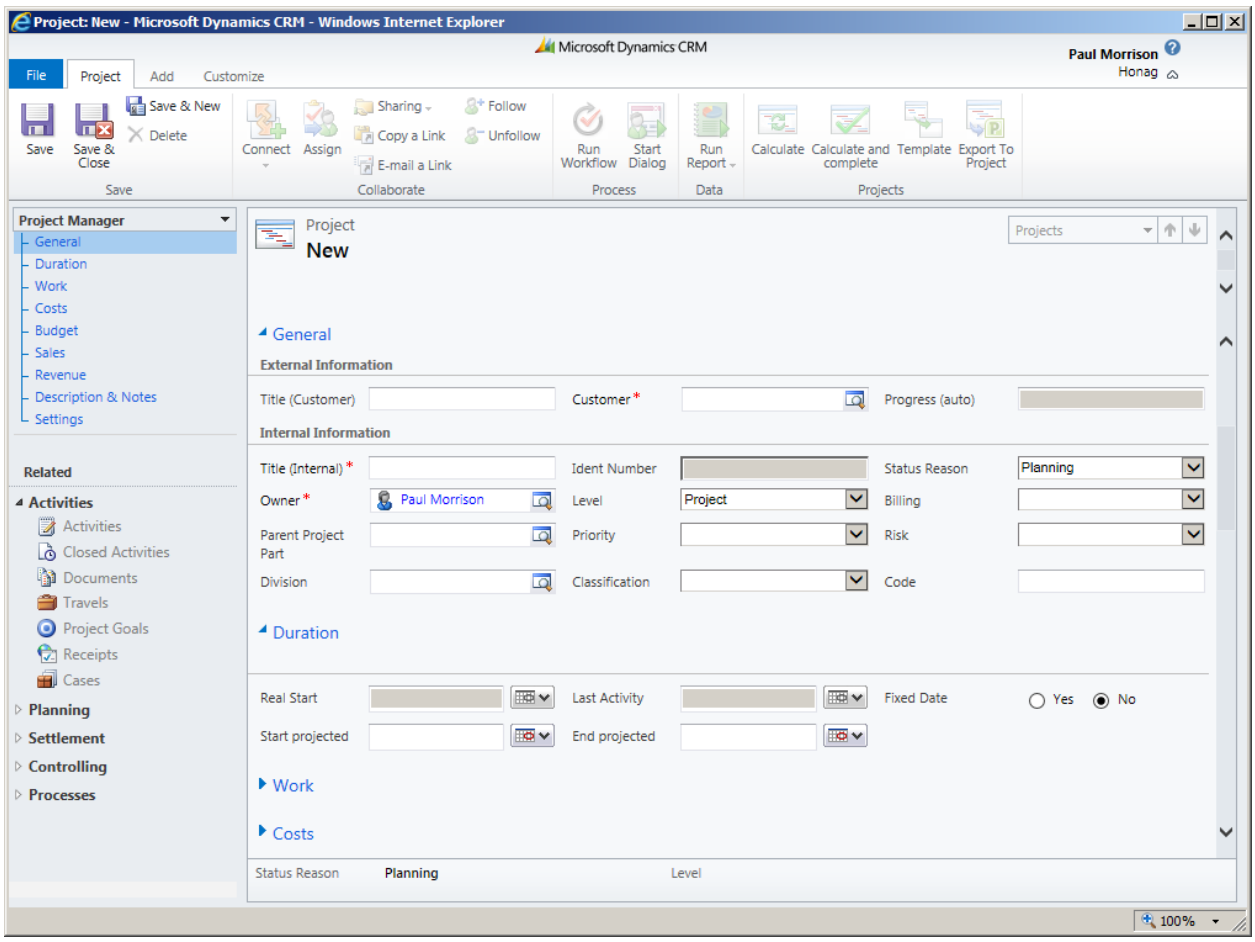
Below is an overview of project information which is stored in the system. They depend on the roles selected. A project manager can see more information than an employee who simply reports back time.

Information in a project's data fields and selected project nodes are subdivided into the following areas:

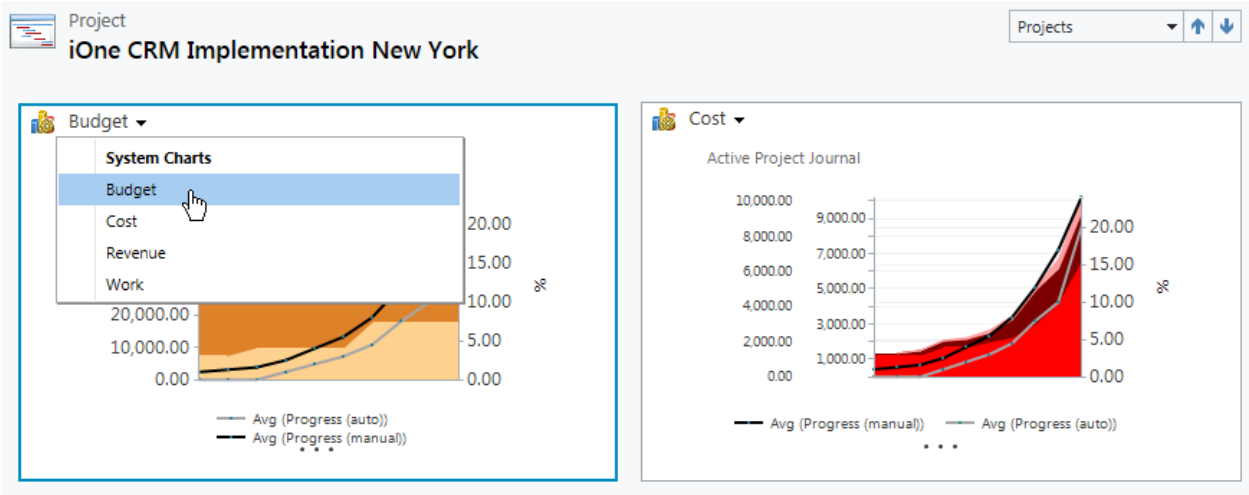
- **General**: General information on the project.
- **Duration:** Time-related information in the project.
- **Work**: All information pertaining to man-days in the project.
- **Costs:** All information pertaining to monetary costs in the project
- **Budget**: The calculated budget for the project.
- **Sales:** Information pertaining to man-days described to the customer.
- **Revenue:** Automatically calculated information regarding the project revenue.
- **Description & Notes**: Information on project content, task, goal and more detailed notes.
- **Settings**: Settings and values pertaining to the project.

Note: *Some fields cannot be filled in as they are automatically filled in by the system. These fields are filled gray and the user cannot edit them.*

Note*: Please be aware, that – when using the template functionality – creating project nodes with field level security fields is only possible if the user has write permissions.*



5.1.1 Project history

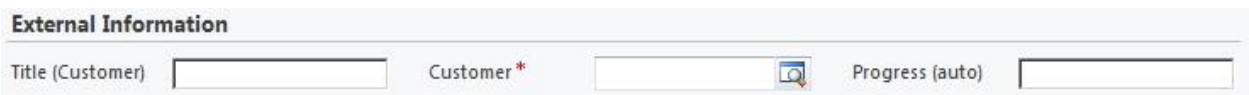


The charts in the upper area of the project form show the project's historical development of the "Budget", "Cost", "Revenue" and "Work" values. The standard values are set to "Budget" and "Costs". However, you can easily switch to other values ("Revenue" or "Work") by clicking on the drop down arrow, beside the header. The values can be also modified or added with Dynamics CRM customizable standard chart technology.

The values used for these charts are saved in the "Project Journal" entity and are recorded through the "Create Journal Entry" workflow. Find more on "Project Journal" configurations in section 16.6.

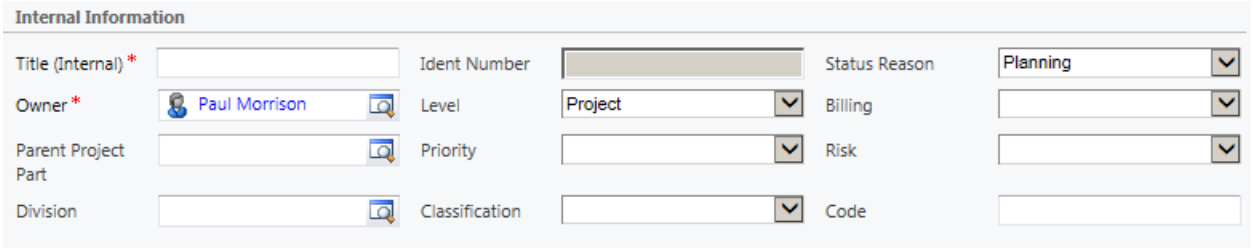
5.1.2 General

5.1.2.1 External information



- **Title (Customer)**: The title of the project node, also used for external parties and customer.
- **Customer**: The company or customer representing the sponsor of the project. The customer is also used to determine whether it is an internal or external project. Please refer to section 16.4for more details.
- **Progress (auto)**: The progress or degree of project completion in %. The field can be filled in manually or automatically. The choice between automatic calculation and manual entry is made under the project's settings. For automatic calculation, the value is calculated by dividing the project node's entered man-days by the projected ones.

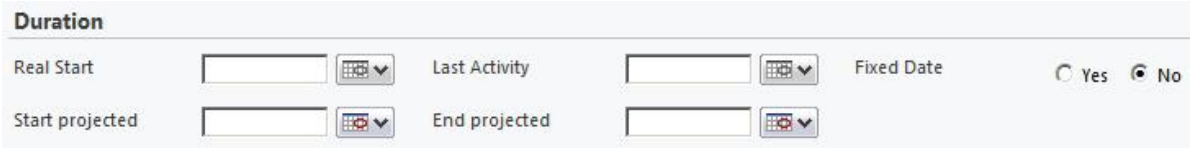
5.1.2.2 Internal information



- **Title (Internal)**: The title of the project node used mainly for internal communication within the project or subproject. This can correspond with the Title (Customer), but can also contain only the project's cost center number, for example. *Note*: This title is used for all lookup fields and views within the project's structure. Make this title as unique as possible (e.g. containing customer + project).
- **Ident Number:** Unique consecutive numbering of all project nodes.
- **Status Reason:** The status reason "Planning", "Processing" and "Template in Progress" are available for an active project status. The status reasons "Completed", "Cancelled", "Interrupted", "Template Draft", and "Template Approved" are available for an inactive project status. Information on creating and completing projects can be found in Sections 2 and 13.
- **Owner:** User within the organization who is responsible for this project node. This person is usually the project manager.
- **Level:** The type of project node is defined with the level. Please refer to Section 2.2 for more information on using levels.
- **Billing:** Define here if the project node can be billed and whether billing is then by fixed price, time & material or both (when there are other project nodes below this one that are billed partly by fixed price and partly by time and material, for e.g.)
- **Parent Project Part:** Specifies if there is another project part above the project node selected, and if so, how it is called.
- **Priority:** Here, you can select if the project node should have prioritized handling and if yes, whether the priority is low, medium or high.
- **Risk:** Select if it is a risk project and whether the risk must be assessed as high, medium or low.
- **Division:** This lookup enables you to assign the project part to a company division or department. The company division and departments correspond with the structure of your organization, as stored in Microsoft CRM.
- **Classification:** The classification is used for additional, individual project classifications within your organization. In the provided configuration, this pick list is only filled in with a default value. You are able to fill in this pick list with any additional values, or change the default value, by customizing Microsoft CRM. You can use your individual classifications in many places within the project organization.
- **Code:** Assign an optional, self-defined, flag for every project node. For example, this can e.g. contain parts of project numbers, customer numbers, priority (etc.)

***Tip**: For the internal title of a project, use a title which your project members can also clearly identify. This simplifies time entry for your project team.*

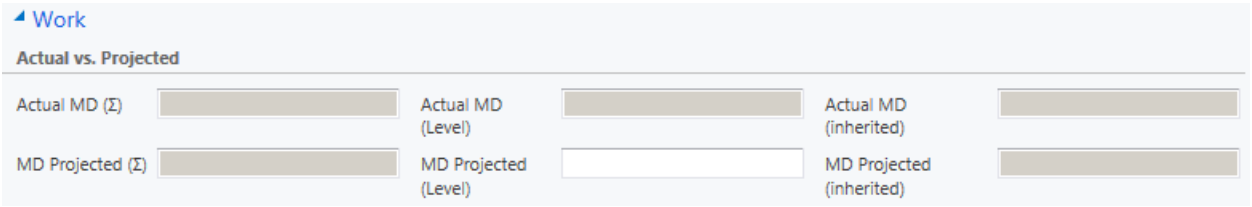
5.1.3 Duration



- **Real Start**: This date field is automatically filled in by CRM-Project, as soon as the first activity (chronologically) of the project is completed. The due date of the completed activity is used as the value.
- **Last Activity**: This date field is always updated automatically by CRM-Project, as soon as a project activity is completed. The due date of the completed activity is used as a value. So you always know when was the last time worked on the project.
- **Fixed Date**: This setting enables planned date values to be fixed; meaning they can no longer be changed. For example, fixed date events (such as exhibitions) can be marked, simplifying planning in functions where drag-and-drop is used.
- **Start projected**: This field is used to specify the projected duration of a project. It defines the start time of the project or the selected project node.
- **End projected**: This date field is used to specify the projected duration of a project. It defines the end time of the project or the selected project node.

5.1.4 Work

5.1.4.1 Actual vs. Projected



- **Actual MD (Σ):** The value in this field is calculated by the system. This field shows all work (in man-days) for the relevant project part, including the project parts underneath. Looking at the topmost part of a project: this field displays the total work performed, so far, in the project. As soon as a team member completes an activity within this project node, or an underneath one, the work time specified in the activity is added to the value existing there by CRM-Project.
- **Actual MD (Level):** The value in this field is calculated by the system. Summed up in this field is work which is directly entered for the project node currently being displayed. As soon as a team member completes an activity within this project node, the work time specified in the activity is added to the value existing there by CRM-Project. The sum of this field **(Actual MD (Level))** and field **Actual MD (inherited)** gives the value for field **Actual MD (Σ)**.
- **Actual MD (inherited):** The value in this field is calculated by the system. This field displays all work (in man-days) for all project parts underneath the current project part. The difference of the values in **Actual MD (Σ)** and **Actual MD (inherited)** is the work entered for the project element being viewed; this is shown in the **Actual MD (Level)** field. **Actual MD (inherited)** is also automatically updated by CRM-Project, as soon as activities are entered for project nodes below the project node currently selected.
- **MD Projected (Σ):** The value in this field is calculated by the system. This field is the sum of fields **MD Projected (Level)** and **MD Projected (inherited)**. The value (therefore) represents the sum of projected number of man-days for this and all project nodes underneath.
- **MD Projected (Level):** This field is used to plan the man-days expected as work for the project node currently selected. Values **MD Projected (Σ)** and **MD Projected (inherited)** are only controlled by this field.
- **MD Projected (inherited):** The value in this field is calculated by the system. This field sums up the projected work, in man-days, from the lower-level project elements.

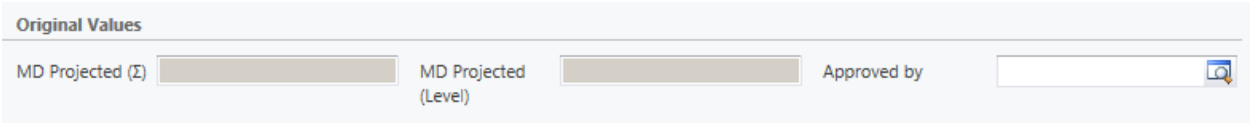
5.1.4.2 Pending

Note: *Values in the "Pending" fields are only calculated if the "Forecast Calculation" field option under "Settings" is "By Activities".*

- **Pending MD (Σ):** The value in this field is calculated by the system. This field shows all projected work (in man-days) for the relevant project part, including the project parts underneath. Looking at the topmost area of a project, this field shows the total work projected in the project. As soon as any personnel-related activity has been planned, for this project node or one underneath, the work time specified in the "**Duration**" field of the activity is added to the value available there by CRM-Project.
- **Pending MD (Level):** The value in this field is calculated by the system. Summed up in this field is work directly projected for the project node currently being displayed. As soon as any personnel-related activity has been planned for this project node, the work time specified in the "**Duration**" field of the activity is added to the value available there by CRM-Project. The sum of this field **(Pending MD (Level))** and field **Pending MD (Inherited)** provides the value for field **Pending MD (Σ)**.
- **Pending MD (Inherited):** The value in this field is calculated by the system. This field displays all projected work (in man-days) for all project parts underneath the project part being viewed. The difference between **Pending MD (Σ)** and **Pending MD (Inherited)** is the projected work for the project element being viewed, and is in field **Pending MD (Level)**. **Pending MD (Inherited)** is also automatically updated by CRM-Project, as soon as activities are scheduled for project nodes below the project node currently selected.

Note: *Recalculating a field's value from hours to man days is based on the setting '**Hours per Man Day**'; See section 15.1.3 for more details.*

5.1.4.3 Original Values

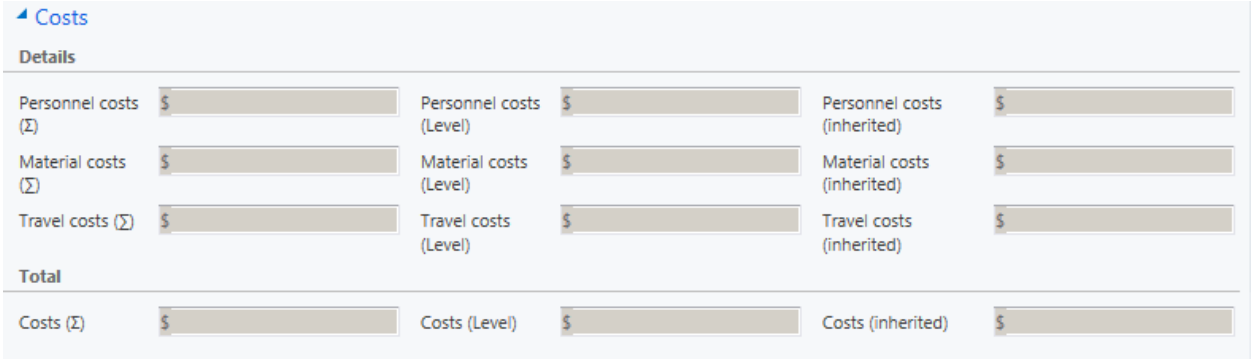


- **MD Projected (Σ)**: This field stores the total number of originally scheduled man-days. The value is automatically set, as soon as the project status reason is changed from **"Planning"** to **"Processing"**.
- **MD Projected (Level)**: This field stores the number of man-days originally scheduled in the project node currently selected. The value is automatically set, as soon as the project state reason is changed from **"Planning"** to **"Processing"**.
- **Approved by:** A digital signature can be used for approving projected work (MD projected). Only the current user can perform this function. This prevents unauthorized approvals and can also be applied to project planning and controlling processes.

Tip*: The MD Projected and MD Projected-Inherited original values are there to provide a comparison of projected and actual values, over the course of the project, in standard CRM list views. Additionally, it's possible to track the original values of project values by using the Microsoft CRM auditing function.*

Tip*: You can also use the digital signature in the "Approved by" field for different purposes and approvals through simple customizations. Please refer to the Microsoft CRM User Manual for more information.*

5.1.5 Costs



5.1.5.1 Details

- **Personnel Costs (Σ):** The value in this field is calculated by the system. This field is the sum of the **Personnel Costs (Level)** and **Personnel Costs (Inherited)** fields. The value (therefore) represents the sum of all accrued personnel-related costs in the project and all project nodes underneath.
- **Personnel Costs (Level):** The value in this field is calculated by the system. Displayed in this field are the personnel-related costs accrued in the project node being viewed (with no nodes underneath).
- **Personnel Costs (Inherited):** The value in this field is calculated by the system. This field displays the personnel-related costs accrued in all project parts beneath the node selected.

Note: *Personnel Costs contain personnel-related costs occurring from time entries in the project. For more details see section 9.7.*

- **Material Costs (Σ):** The value in this field is calculated by the system. This field is the sum of the **Material Costs (Level)** and **Material Costs (Inherited)** fields. The value (therefore) represents the sum of all material costs currently accrued for this and all project nodes underneath.
- **Material Costs (Level):** The value in this field is calculated by the system. Displayed in this field are the material costs accrued for the project node being viewed (with no nodes underneath).
- **Material Costs (Inherited):** The value in this field is calculated by the system. This field displays the material costs of all the project parts beneath the node selected.

Note: *Material Costs contain material-related costs occurring from "Material Usage" (see section 9.6) and "Resource Usage" (see section9.5) activity type project entries.*

- **Travel Costs (Σ):** The value in this field is calculated by the system. This field is the sum of the **Travel Costs (Level)** and **Travel Costs (Inherited)** fields. The value (therefore) represents the sum of all travel costs currently accrued for this and all project nodes underneath.
- **Travel Costs (Level):** The value in this field is calculated by the system. Displayed in this field are travel costs accrued for the project node being viewed (with no nodes underneath).
- **Actual Costs (Inherited):** The value in this field is calculated by the system. This field displays the travel costs of all project parts beneath the node selected.

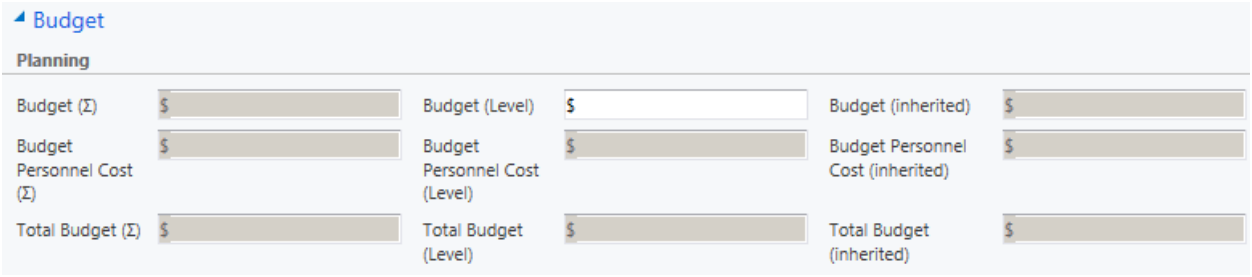
Note: *Travel Costs contain travel-related costs, occurring from time entries in travel activities and receipts. For more details see 10.*

5.1.5.2 Total

- **Costs (Σ):** The value in this field is calculated by the system. This field is the sum of the **Costs (Level)** and **Costs (Inherited)** fields. The value (therefore) represents the sum of all costs currently accrued for this and all project nodes underneath.
- **Costs (Level):** The value in this field is calculated by the system. Displayed in this field are the total costs accrued for the project node viewed (with no nodes underneath).
- **Costs (Inherited):** The value in this field is calculated by the system. This field displays the total costs of all project parts beneath the node selected.

5.1.6 Budget

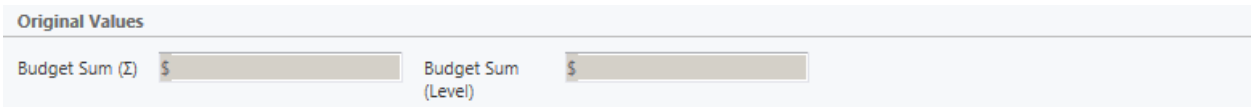
5.1.6.1 Planning



- **Budget (Σ):** The value in this field is calculated by the system. This field shows the projected budget for the relevant project node (from field **"Budget (Level)"**), including the budget of project nodes underneath.
- **Budget (Level):** Entered in this field is the projected budget for the project node currently being displayed. The value can only be entered/changed while the project state is "Planning". Together, fields **Budget (Level)** and **Budget (Inherited)** provide the value for the **Budget (Σ)** field.
- **Budget (Inherited):** The value in this field is calculated by the system. This field displays the entire budget for all project nodes that are beneath the project part currently being displayed.
- **Budget Personnel Cost (Σ):** The value in this field is calculated by the system if the use of personnel costs in the budget is selected under settings. This field shows the entire budget for personnel costs, for the respective project node, including the project nodes underneath.
- **Budget Personnel Cost (Level):** The value in this field is calculated by the system if the use of personnel costs in the budget is selected under settings. This field shows the budget of the project node currently being shown. The value is calculated automatically from the resources entered in the resource planner. Please see Section 6.4 for more details.
- **Budget Personnel Cost (Inherited):** The value in this field is calculated by the system if, under Settings, the use of personnel costs in the budget is selected. This field displays the entire personnel cost budget for those project nodes that are beneath the project node currently being shown.
- **Total Budget (Σ):** The value in this field is calculated by the system. This field is the sum of values **Budget (Σ) and Budget Personnel Cost (Σ)**. The value hence corresponds to the entire budget that is available for the project, including all project nodes underneath.
- **Total Budget (Level):** The value in this field is calculated by the system. This field is the sum of values **Budget (Level) and Budget Personnel Cost (Level)**. The value hence corresponds to the total budget that is available for the project node currently selected.
- **Total Budget (Inherited):** The value in this field is calculated by the system. This field is the sum of values **Budget (Inherited) and Budget Personnel Cost (Inherited)**. The value thus corresponds to the sum of the budgets that are provided from the project nodes, below the project node currently selected.

***Tip**: Within the budget, i.e. the projected costs of the project, you have the choice whether or not to work with the separate disclosure of personnel costs. The **"Budget Personnel Cost ..."** fields are then either required or not. If you work without the separate disclosure of personnel costs, the same values are displayed in fields **"Budget ..."** (line 1) and **"Total Budget..."** (line 3). Please refer to Section 6.4 for more details on budgeting.*

5.1.6.2 Original Values



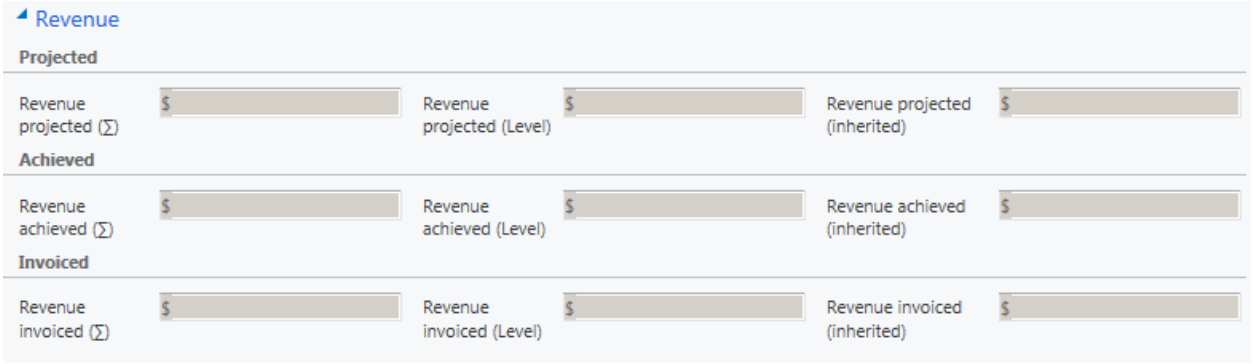
- **Budget Sum (Σ)**: This field stores the total of the budget originally scheduled. The value is automatically calculated as soon as the project status reason is changed from "Planning" to "Processing".
- **Budget Sum (Level)**: Stored in this field is the budget originally projected in the project node currently selected. The value is automatically set as soon as the project status reason is changed from **"Planning" to "Processing"**.

***Tip**: These two original values are there to provide a comparison of projected and actual values over the course of the project in standard CRM list views. In addition, the storing of any project values is possible with the Auditing function of Microsoft CRM. Please refer to the Microsoft CRM User Manual for more information.*

5.1.7 Sales

- **MD sold (Σ):** The value in this field is calculated by the system. This field shows the total man-days sold for the current project node and the project nodes underneath.
- **MD Sold (Level):** The sold man-days for the current project node can be kept in this field. Values MD Sold (Σ) and MD Sold (Inherited) are only controlled by this field.
- **MD Sold (Inherited):** The value in this field is calculated by the system. This field totals the sold man-days of all project nodes lying below the selected node.

5.1.8 Revenue



5.1.8.1 Projected

- **Revenue projected (Σ):** The value in this field is calculated by the system. This field shows the total amount of projected revenue, calculated through scheduled activities/work and prices of the order products, for the current project node and the project nodes underneath.
- **Revenue projected (Level):** The value in this field is calculated by the system. This field shows the total amount of projected revenue, calculated through scheduled activities/work and prices of the order products, for current project node (not including nodes underneath)
- **Revenue projected (Inherited):** The value in this field is calculated by the system. This field contains the amount of projected revenue, calculated through scheduled activities/work and prices of the order products, for all project nodes lying below the selected node.

***Note:** There are different ways to calculate the values in the "Revenue Projected" fields. Use the **"Forecast Calculation"** setting to activate or define the required mode. For more details see 5.1.10.1.*

5.1.8.2 Achieved

- **Revenue achieved (Σ):** The value in this field is calculated by the system. This field shows the total amount of the achieved revenue, calculated through completed activities/work and prices of the order products, for the current project node and the project nodes underneath.
- **Revenue achieved (Level):** The value in this field is calculated by the system. This field shows the total amount of achieved revenue, calculated through completed activities/work and prices of the order products, for the current project node (not including nodes underneath).
- **Revenue achieved (Inherited):** The value in this field is calculated by the system. This field contains the amount of achieved revenue, calculated through completed activities/work and prices of the order products, for all project nodes lying below the selected node.

5.1.8.3 Invoiced

- **Revenue invoiced (Σ):** The value in this field is calculated by the system. This field shows the total amount of invoiced revenue, calculated through billed activities/work and prices of the order products, for current project node and the project nodes underneath.

- **Revenue invoiced (Level):** The value in this field is calculated by the system. This field shows the total amount of invoiced revenue, calculated through billed activities/work and prices of the order products, for the current project node (not including nodes underneath).
- **Revenue invoiced (Inherited):** The value in this field is calculated by the system. This field contains the amount of invoiced revenue, calculated through billed activities/work and prices of the order products, for all project nodes lying below the selected node.

Note: *The value in this field is not updated automatically. This field is only updated when the project is recalculated. The "Calculate" function is available for this on the ribbon bar, for every project.*

5.1.9 Description & Notes

5.1.9.1 Description

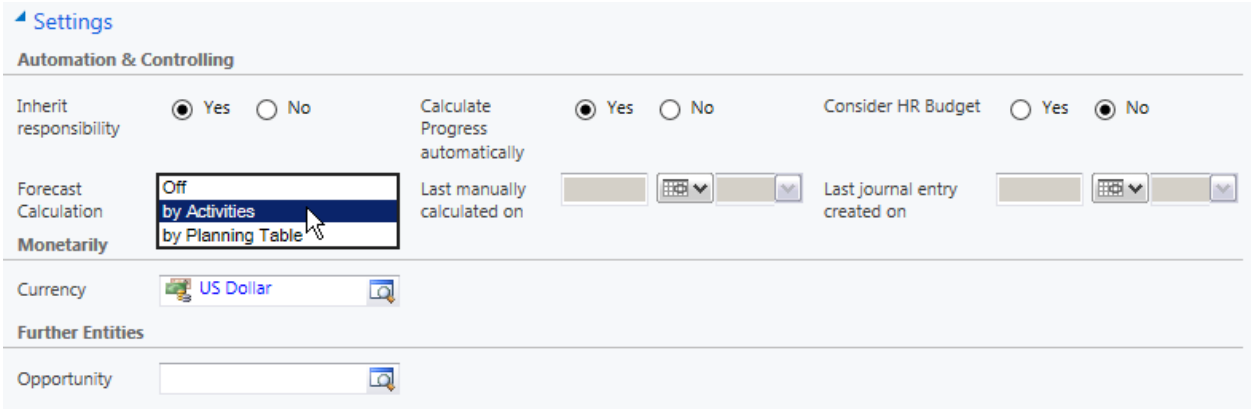
This text field can be used for descriptions of project content, task and goal pursued.

5.1.9.2 Notes

This area can be used for standard Microsoft CRM notes. Notes can also be used for keeping documents and attachments.

Tip: *For keeping documents within the project, we recommend using document management integration of Microsoft CRM with Microsoft Sharepoint.*

5.1.10 Settings



5.1.10.1 Automation & Controlling

- ***„Inherit responsibility"***: You are able to choose whether the responsibility is inherited or not after changes for a project node. The default standard is 'Yes'.
- ***„Calculate Progress automatically"***: Use this setting to specify whether the project progress is automatically filled as a percentage (see field "Progress") by the system or whether the information is entered manually by the person in charge of the project.
- ***„Consider HR Budget"***: This setting is only available on the topmost level of every project. You can use this button to control whether the budgets entered manually are used to calculate budgeting or whether the scheduled resources are included in budgeting via the cost rates kept there. Please refer to section 6.4 for more on the topic of budgeting.
- ***"Forecast Calculation"***: Revenue can be calculated depending on the option in this field (see section 5.1.8). Use the "**By Activities"** option to calculate revenue based on activities scheduled for project nodes. In this case, projected, but still open activities are represented as "**Pending MDs**" (see section 5.1.4.2). When using the "**By Planning Table"** option**,** work assigned to the project members via Planning Table is considered. If you don't want to calculate revenue at all, set the option to "**Off".**
- ***"Last manually calculated on".*** The date and time of the last manual calculation (by button "Calculate" on the ribbon bar) is set in this field. This field can also be used as a trigger for individual calculation.
- ***"Last journal entry created on".*** The date and time of the last project journal entry's creation is saved in this field (see section 0 to learn more about it).

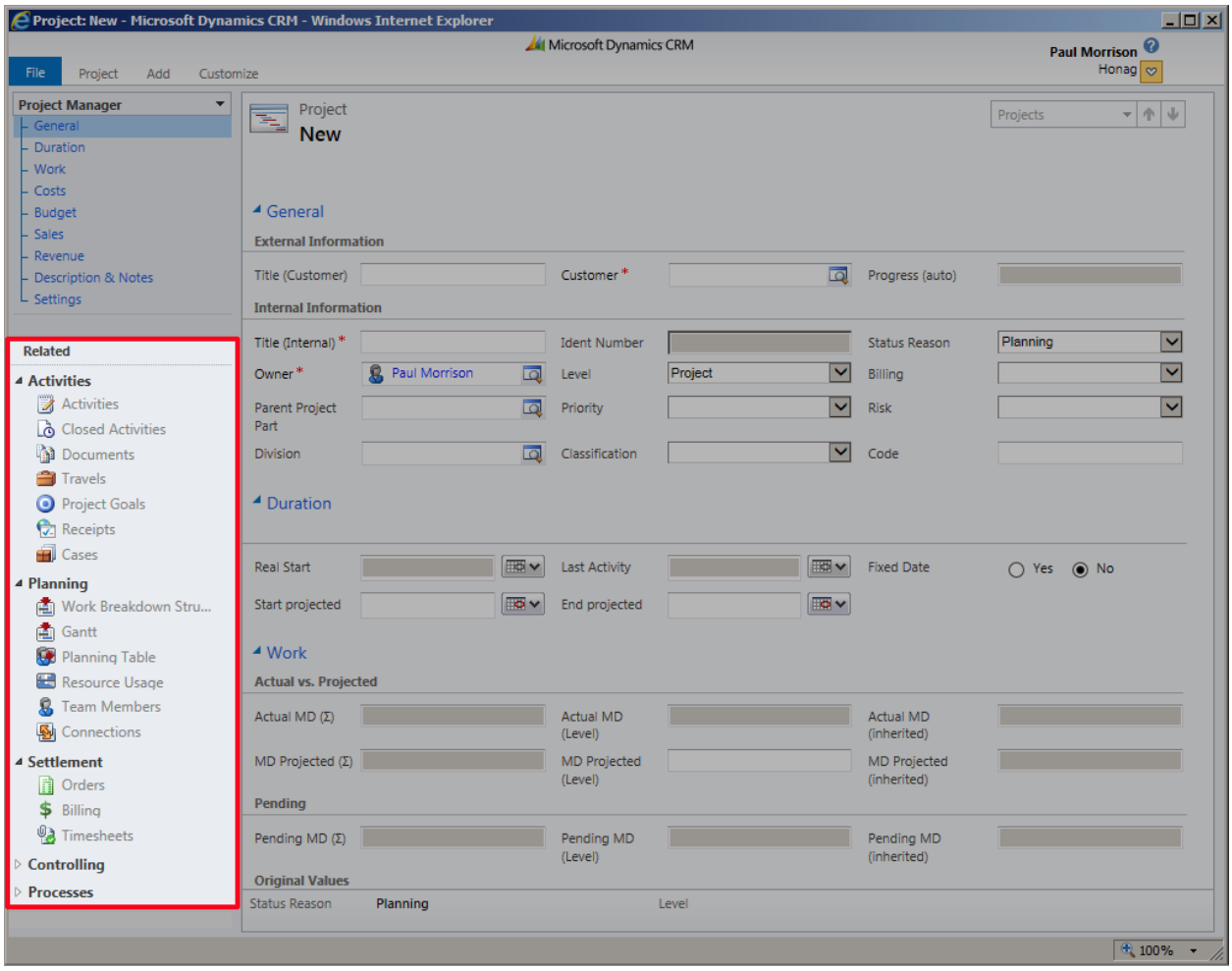
5.1.10.2 Monetarily

Specify here the currency valid for the project.

5.1.10.3 Further entities

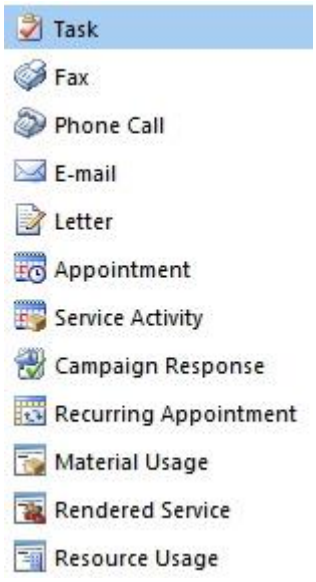
A sales opportunity can be assigned to a project here to support, early on, (with the project structure) projects that are still in pre-sales.

5.2 Activities pane



5.2.1 Activities

The window below depicts all available activities which are assigned to the project node.



Additional views and filters are available in the Gantt chart and Work Breakdown Structure (WBS) to provide an overview of all activities within the whole project structure (not only those of the project node currently selected).

5.2.2 Closed activities

In this area are all closed activities assigned to the currently selected project node are to be found. Views and filters are available in the Gantt chart and the WBS to provide an overview of all activities within the whole project structure.

5.2.3 Documents (if Share Point has been integrated beforehand)

Information about Share Point added documents can be found in this area.

5.2.4 Travel

Here, all travels related to the currently selected project node can be found. Views and filters are available in the Gantt chart and WBS to provide an overview of all travels within the whole project structure.

5.2.5 Receipts

The Receipts area provides you with direct access to the receipts created for travels pertaining to this project node. Views and filters are available in the Gantt chart and WBS to provide an overview of all receipts within the whole project structure.

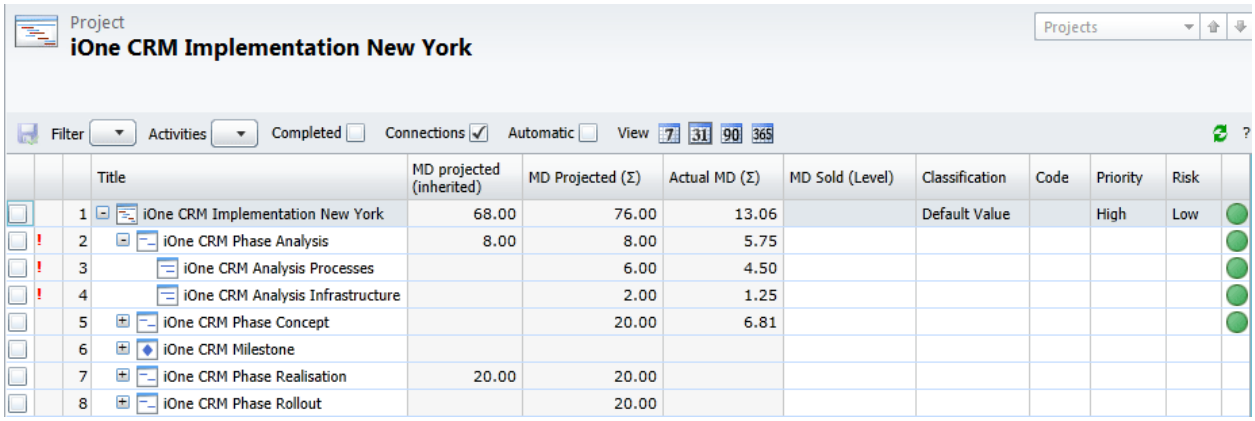
5.2.6 Cases

The Cases area enables you to see whether (and if yes) which cases are assigned to this project node. This enables the user to collect service cases pertaining to a particular work areain a project or subproject.

5.3 Planning pane

5.3.1 Work Breakdown Structure (WBS)

The Gantt chart and the WBS are the two ways to structure a new project and to edit and monitor an existing one.



		Title	MD projected (inherited)	MD Projected (Σ)	Actual MD (Σ)	MD Sold (Level)	Classification	Code	Priority	Risk
	1	iOne CRM Implementation New York	68.00	76.00	13.06		Default Value		High	Low
!	2	iOne CRM Phase Analysis	8.00	8.00	5.75					
!	3	iOne CRM Analysis Processes		6.00	4.50					
!	4	iOne CRM Analysis Infrastructure		2.00	1.25					
	5	iOne CRM Phase Concept		20.00	6.81					
	6	iOne CRM Milestone								
	7	iOne CRM Phase Realisation	20.00	20.00						
	8	iOne CRM Phase Rollout		20.00						

5.3.1.1 „Complete" button

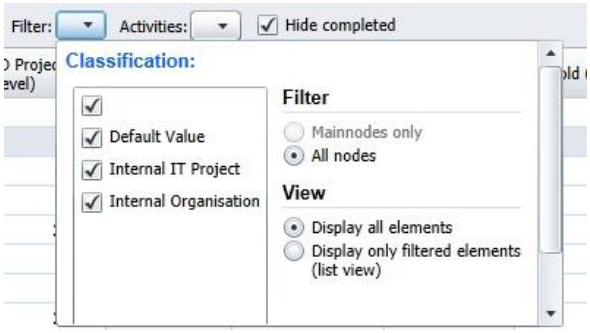
With the "***Complete***" button (in the project tree), several work packages can be simultaneously marked as complete. If an open activity is still present in a project node, the node can not be marked as complete. You will be prompted with an error message. To complete a project node, make sure to mark all activities and task within the node as complete.

5.3.1.2 Filter

The filter is available in the Work Breakdown Structure, the project-related Gantt chart and the company-wide Gantt chart, and filters the elements shown using the Classification attribute (see section 5.1.2.2 for details on the attribute). The **filter "*Mainnodes only*"** option is only available in the company-wide Gantt chart because there is only ever one main node in the project-related Gantt chart.

Any number of classification values can be included/excluded. Filtering pertains by default to all nodes in the project structure displayed.

Alternatively, all elements of the project structure can be shown. A gray background denotes elements not meeting the criteria. Electively, the option **"*Display only filtered elements*"** can be selected; then all elements not matching the classification are hidden from view. For this, the structure of the project in this view is converted to a list.



5.3.1.3 Activities

The **Activities** drop-down menu enables you to display activities, travels and vouchers within the project structure. The following filters are available:

- **None (default):** No activities are shown and only project nodes are displayed.
- **All activities:** All activities; travel and receipts for the respective project elements are displayed (completed and open).
- **All open:** All open activities, i.e. all incomplete elements, are displayed.
- **My activities:** All activities; travel and receipts for the user currently logged into the project are displayed (completed and open).
- **My open:** All pending resource activities (status is "***active***") of the current user are displayed in the project structure.

5.3.1.4 Hide completed

"***Hide completed***" pertains to project nodes within the Work Breakdown Structure or Gantt chart. The tick is set by default and all project nodes already complete are hidden from view for the sake of clarity. Unchecking the option shows the project nodes completed.

5.3.1.5 Automatic Mode

Automatic mode makes available various automations that simplify and accelerate scheduling with the Gantt chart. Please refer to Section 5.3.4.4for more details.

***Tip**: You can also show the Gantt function in the WBS by using the mouse to drag the vertical divider from the right-hand border to the left.*

5.3.1.6 View

View is used to increase or decrease the scale of the time line in the Gantt chart. Please refer to Section 5.3.2for more details.

5.3.1.7 Columns of the Work Breakdown Structure

- **Line number**: Automatic numbering of lines shown. Clicking a line number opens the selected element in a new window.
- **Title**: Represents the "internal title" of the relevant project node or the title of the relevant activity, travel or receipt.
- **Start (projected) and End (projected)**: The projected start and end dates of the relevant element. For activity types relating only to a day (such as tasks), the due date is displayed in both the start and end date.
- **Duration**: The duration (in calendar days) is calculated as end date less start date.
- **Predecessors**: The Predecessors column enables you to define one or more project nodes as predecessors for the project node selected. Different types of relationships are possible.
- **Level**: Represents the level defined in the project and allows a change of level via a drop down menu.
- **Owner**: Represents the owner of the relevant project node. This selection can also be changed via the field. Only users who are enabled for project management are shown in this list.
- **Status Code**: The state reason of the project node.
- **MD Projected (Level)**: Represents the man-days projected for the respective project node. You can enter changes directly

- **MD Projected (Inherited), MD Projected (Σ), Actual MD (Σ)**: Project form information calculated by the system (shown read-only).
- **MD Sold (Level)**: Information from the same-named field in the project form with the possibility of changing it directly.
- **Classification**: Shows the project classification with the ability to change it.
- **Priority**: Shows the selected value from the project form with the ability to change it.
- **Risk**: Shows the selected value from the project form with the ability to change it.
-

5.3.1.8 Functions of the Work Breakdown Structure

The following functions are available within the tabular view of the Work Breakdown Structure.

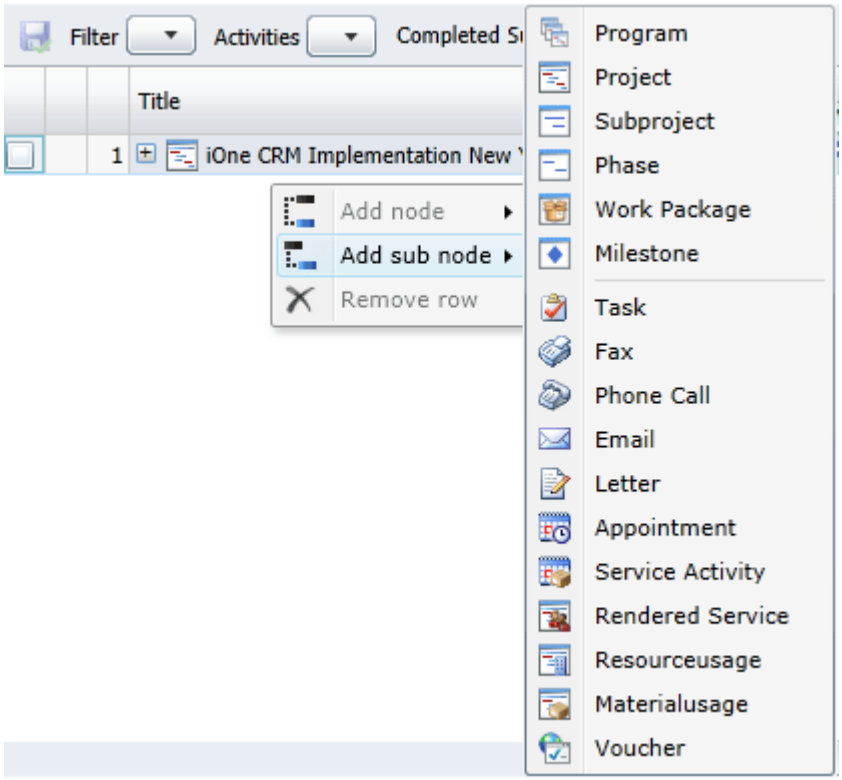
5.3.1.8.1 Shortcuts located in the keyboard

The following key shortcuts are available inside the table to help you work faster:

- "F2": Edits the cell selected
- "Esc": Exits editing mode without saving changes
- "Tab" or "Enter" Saves the field content

5.3.1.8.2 Creating project nodes

New project nodes and activities can be created from a context menu or by keyboard shortcut. Pressing the right-hand mouse button in the table view enables access to the context menu.



The following items can be added using the context menu:

- Activity: task, fax, phone call, email, letter, appointment, service activity, rendered service, resource usage, material usage
- Project node: program, project, subproject, phase, activity package, milestone.

The following items can be added with a shortcut:

- **Add row (shortcut: "Ins")**: Inserts another project node of the same level underneath the row selected.
- **Add sub row (shortcut: "Shift" + "Ins")**:
  Inserts another project node of the level below the row selected.

5.3.1.8.3 Removing project nodes

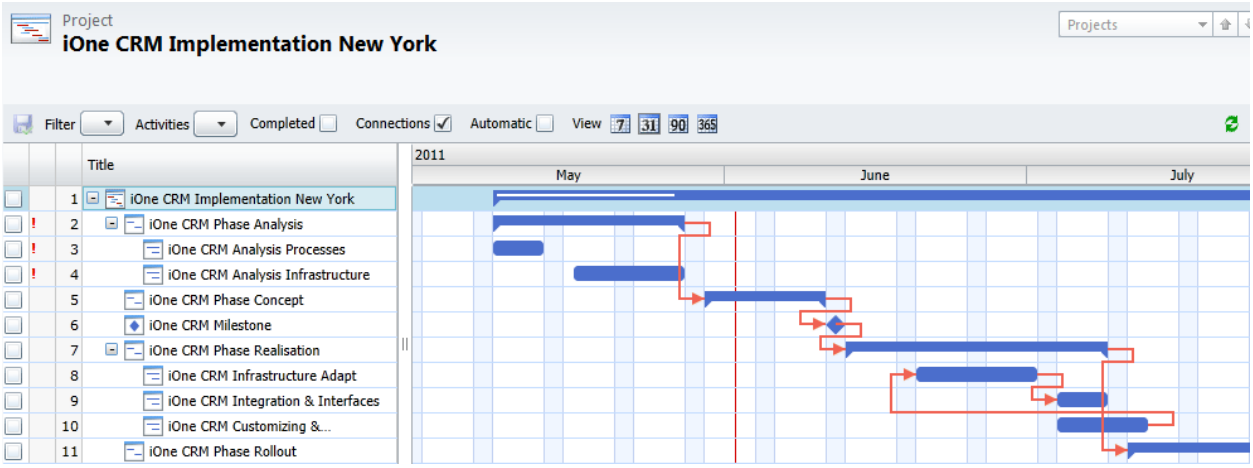
Existing project nodes can also be removed from the context menu (Remove row) or with a shortcut ("Del").

***Note**: Please remember that removing a project node also irreversibly deletes all project nodes below and all related activities and information. If you only want to delete a single project node and preserve the structure underneath, we recommend "relocating" the lower-level nodes beforehand. Please refer to section 6.1.2 for more information.*

5.3.2 Gantt

In addition to the functions of the Work Breakdown Structure, the Gantt link provides a Gantt chart with other functions for project creation and organization.

***Tip**: General information on viewing projects within a Gantt chart is available in the relevant project management literature.*



5.3.3 View

5.3.3.1 Symbols

The following symbols are available for project nodes with the following settings for the level:

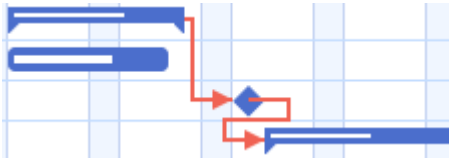
Project / Program / Phase / Undefined (bracket)

Subproject / Work package (bar)

Milestone (diamond)

For activities, travel and receipts, points are displayed on the relevant date in the Gantt chart.

Red arrows denote predecessor and successor relationships in the Gantt chart.



For project nodes with level setting **Project, Program, Subproject, Phase and Work Package, project progress**, the degree of completion is shown additionally in the Gantt chart with a line inside the relevant Gantt bar.

Information from the "***Progress***" field of the relevant project node is used as value.

A red exclamation mark after the relevant bar in the diagram signals when a project has been completed by more than 100%.

***Note**: Completion by more than 100% can occur when the project progress is calculated automatically by the system, and already more man-days have been entered for the project than originally projected.*

5.3.3.2 Colors

The objects on the Gantt chart (project parts, milestones, activities) are displayed in different colors depending on their status:

- Blue = active, in processing
- Orange = active, in planning
- Green = inactive, complete
- Grey = inactive, cancelled or interrupted
- Violet = template

5.3.4 Functions

5.3.4.1 Filter

See 5.3.1.2

5.3.4.2 Activities

See 5.3.1.3

5.3.4.3 Hide completed

See 5.3.1.4

5.3.4.4 Automatic Mode

Automatic Mode makes available various automations that simplify and accelerate scheduling with the Gantt chart. Behavior with Automatic Mode enabled and disabled is explained below for improved understanding.

***Note**: The effects described below only pertain to project nodes whose start and end dates are not marked as "Fixed Dates". Fixed elements are not moved or aligned with Automatic Mode.*

5.3.4.4.1 Changes of higher-level and lower-level elements with Automatic Mode disabled

- Inner limitations for higher-level nodes:

  If a node to be moved or changed has lower-level elements, the higher-level nodes can only be moved within the time range of the lower-level elements. It is not possible to set a Start date later or an End date earlier than defined by the lower-level nodes.

- Outer limitation for lower-level elements

  Start and End dates of a bar or bracket can only be moved within the time period of the enclosing brackets (higher-level project node). This also applies to changes in the table on the left-hand side of the Gantt view.

5.3.4.4.2 Changes of higher-level and lower-level elements with Automatic Mode enabled

- Automatic alignment of higher-level project nodes:

  The consequence of moving or changing a date value of a lower-level node is that the higher-level nodes are automatically given the Start date of the earliest, or the End date of the latest lower-level node.

- Automatic alignment of lower-level project nodes

  Moving a higher-level node has the following effect on lower-level elements:

  - Moving the higher-level element also moves all lower-level nodes, or instantly connected nodes (successor nodes) within the same time period.
  - Aligning the start or end date of the higher-level element moves the start or end date values of elements underneath or connected (successor elements), if they would otherwise lie outside the new range. The duration of the lower-level element is not changed however.
  - Increasing the time span of the higher-level element has no effect on the nodes underneath.

***Tip**: For activities, whose due date (after a change), is no longer within the time period of the project node, the due date in Automatic Mode is set to date value "End (Projected)" of the project node belonging to the task.*

Activities without a due date are ignored in this automation. Also, this alignment is only run for active tasks. Tasks already closed or completed remain unchanged.

5.3.4.5 View

View is used to increase or decrease the scale of the time line in the Gantt chart. The following selection options are available:

- Weekly View
- Monthly View
- Quarterly View
- Yearly View

5.3.4.6 Drag & drop

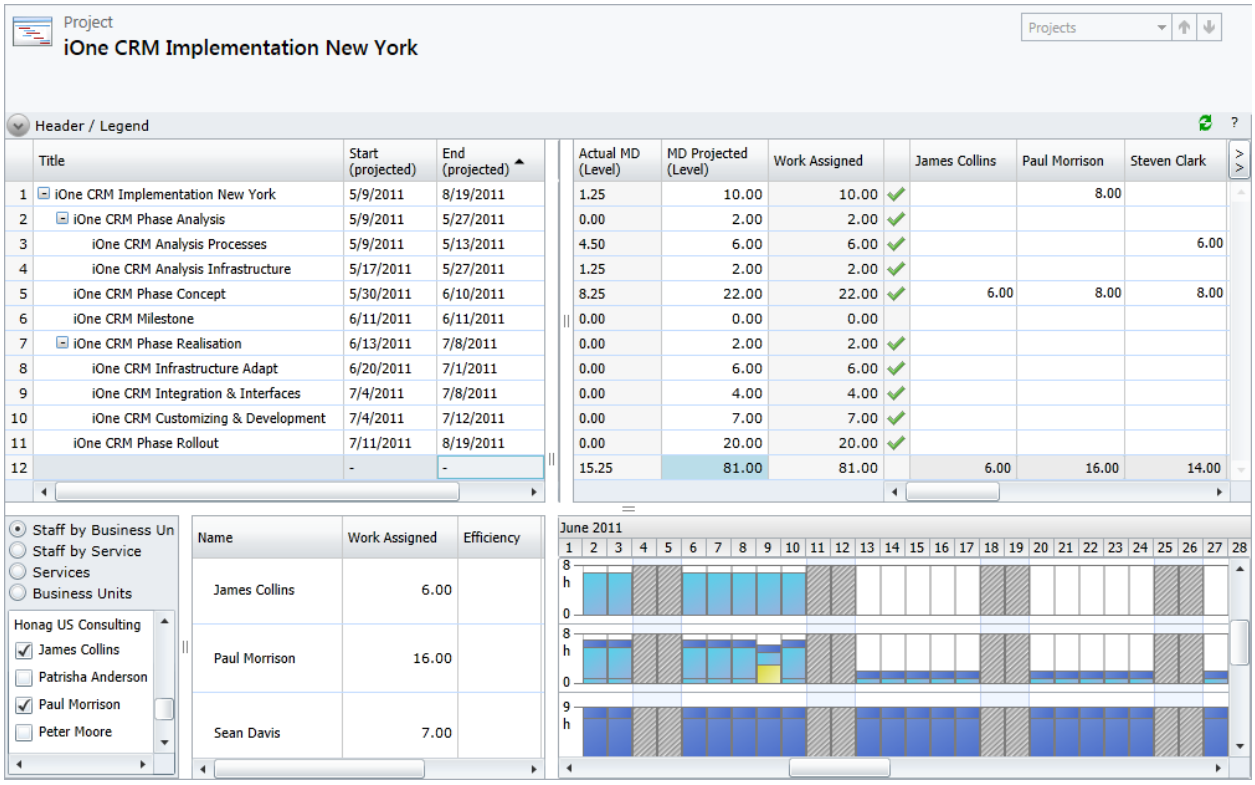
Drag & drop can be used to move the individual brackets and bars of the Gantt chart along the time axis. Also, the start and end can be changed in the chart by moving the start and end of the bar.

***Note*:** *The possible movement range is based on the relevant settings of the Automatic Mode.*

In addition, all elements in the Gantt or structure plan, from small tasks to all parts of the project, are arranged using drag and drop; this enables a new arrangement within the structure. More information on this topic can be reviewed in Section 6.1.2.

5.3.5 Planning table

The planning table is used to assign resources to the scheduled nodes within the project. This means assignment is possible up to the "Work Package" detailing level. The CRM activities are available within the project nodes for more detailed planning.


Project
iOne CRM Implementation New York
Projects
Header / Legend
Title
Start (projected)
End (projected)
Actual MD (Level)
MD Projected (Level)
Work Assigned
James Collins
Paul Morrison
Steven Clark
1 iOne CRM Implementation New York 5/9/2011 8/19/2011 1.25 10.00 10.00 8.00
2 iOne CRM Phase Analysis 5/9/2011 5/27/2011 0.00 2.00 2.00
3 iOne CRM Analysis Processes 5/9/2011 5/13/2011 4.50 6.00 6.00 6.00
4 iOne CRM Analysis Infrastructure 5/17/2011 5/27/2011 1.25 2.00 2.00
5 iOne CRM Phase Concept 5/30/2011 6/10/2011 8.25 22.00 22.00 6.00 8.00 8.00
6 iOne CRM Milestone 6/11/2011 6/11/2011 0.00 0.00 0.00
7 iOne CRM Phase Realisation 6/13/2011 7/8/2011 0.00 2.00 2.00
8 iOne CRM Infrastructure Adapt 6/20/2011 7/1/2011 0.00 6.00 6.00
9 iOne CRM Integration & Interfaces 7/4/2011 7/8/2011 0.00 4.00 4.00
10 iOne CRM Customizing & Development 7/4/2011 7/12/2011 0.00 7.00 7.00
11 iOne CRM Phase Rollout 7/11/2011 8/19/2011 0.00 20.00 20.00
12 - - 15.25 81.00 81.00 6.00 16.00 14.00
Staff by Business Un
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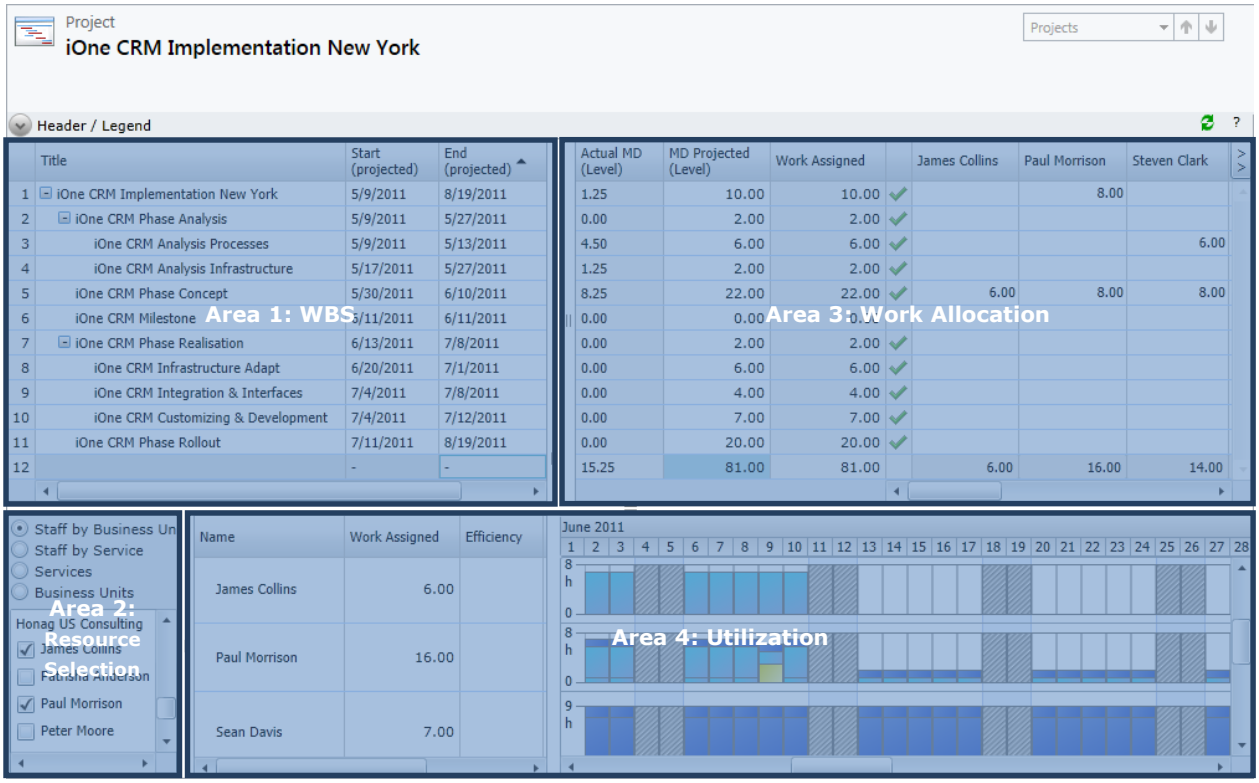
Services
Business Units
Honag US Consulting
James Collins
Patrisha Anderson
Paul Morrison
Peter Moore
Name
Work Assigned
Efficiency
James Collins 6.00
Paul Morrison 16.00
Sean Davis 7.00
June 2011
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
8 h 0
8 h 0
9 h

The planning table is made up of various areas that are based on each another.



Area 1: Work Breakdown Structure

Area 2: Resource Selection

Area 3: Work Allocation

Area 4: Utilization

Area 1 provides access to all the nodes of a project. Resource assignment is on a per-node basis (i.e. per row). The required project node must be selected first.

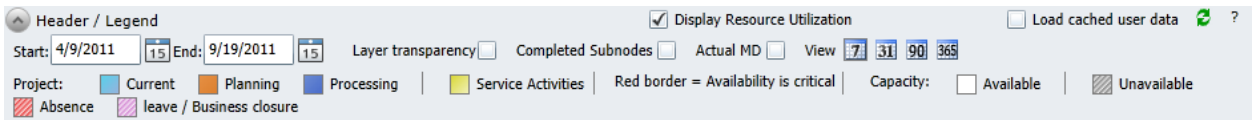
Resources are then, for this node, assigned in area 2. You can decide whether you wish to assign defined users and/or service types. When assigning work, employees can be selected through options related "Services" or "Business Unit", when planning criteria.

After selection of the required resources by checking the checkboxes, Area 3 is used to allocate the work. The **"MD Projected (Level)"** column provides information on the amount of work scheduled for the project node. By activating the setting **"Actual MD"** (in the legend) for each team member the "actual time entries" will be shown beside the planned time. The "Work Assigned" column automatically shows the total of man-days already distributed. To the right are all the selected resources in columns. The assigned and actual work for every resource can be viewed under each team member. Please refer to Section 5.3.7 for more information.

Linking man-days to the pre-selected resources displays these resources and their respective project utilization in Area 4 below the work allocation.

Note: *The resource preview in Area 4 can be deactivated by the user. This allows faster planning, especially when you are working on big projects with many lines. Use the option "Display Resource Utilization" in the header for activating or deactivating.*

The legend shows the meaning of the individual colors of the bars shown:



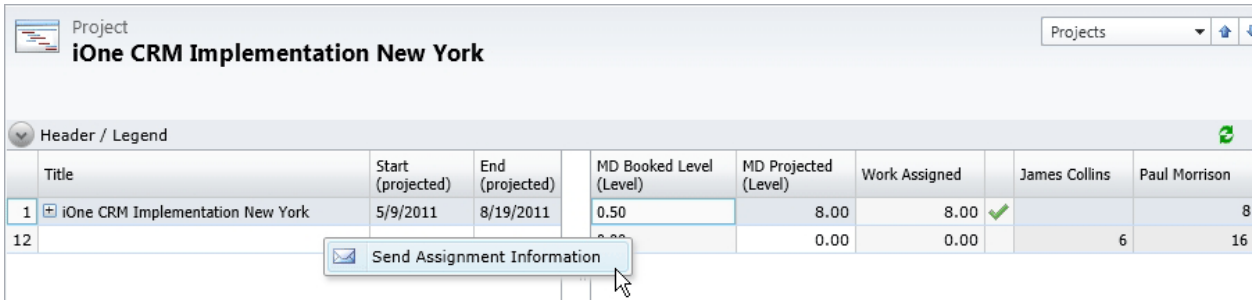
The legend is minimized by default; you can re-open the legend by clicking the side arrow.

The work use, from the project node **currently** selected, is shown in **cyan**. Other projects, still active for the resource, are shown in **orange** while they are still in planning and **blue** as soon as projects are in processing. Fixed appointments are shown in **yellow** on the relevant day. If an employee is planned for a project while absent, a red error frame will appear. There may be overload or underutilization depending on work utilization. These scenarios can be solved with the following actions for example:

- Distribution of the project node work in other ratios or to other resources in Area 3.
- Changing the runtime of the project node via Start date / End date in Area 1.
- In Area 3, moving back the Gantt view of the project and moving the bar of the project node to another area in which utilization results in fewer conflicts.

***Tip**: Layer transparency enables you to see the Gantt view at all times, even if you only want to use work allocation.*

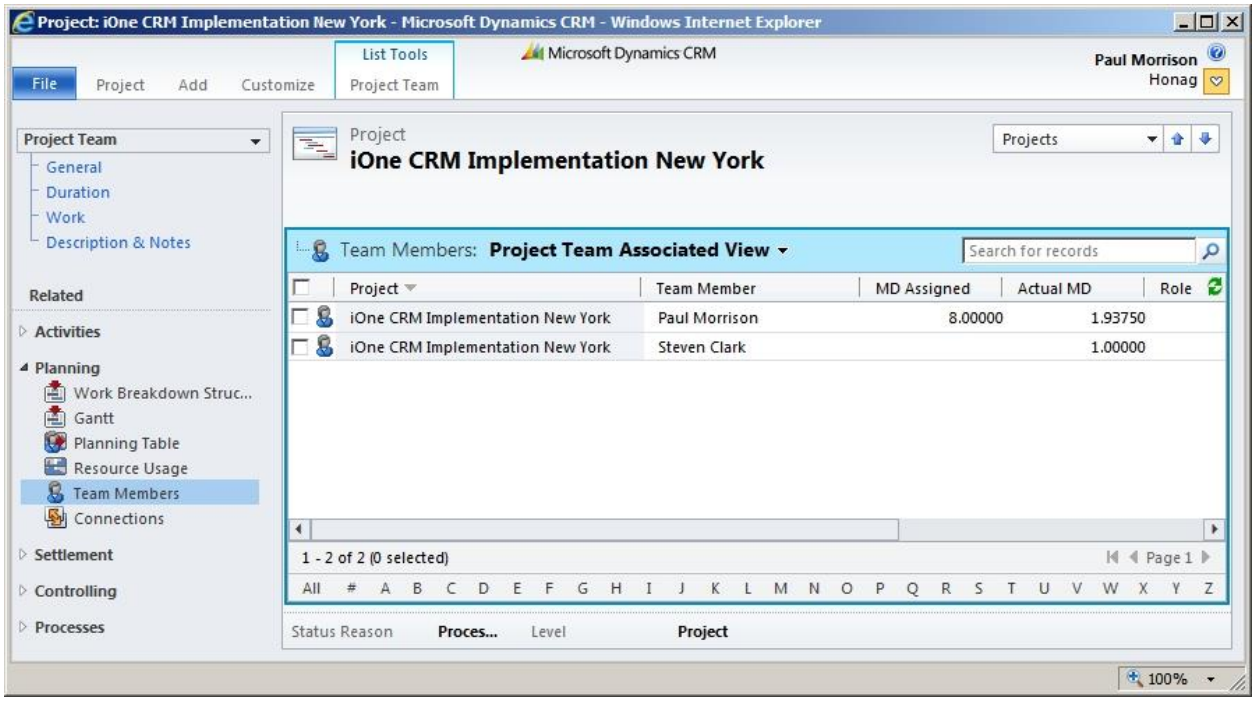
After scheduling the resources, you can inform the project members and service managers about upcoming project assignments by e-mail; to do this select the project node, right-click and send the e-mail. The system looks up the participants in the project, and the project sub-nodes, and sends the e-mail to the notification.



5.3.6 Resource Usage

Resource usage is a filtered variant of resource utilization. Unlike resource utilization, in which all resources in all projects are shown, resource usage only shows the distribution of all project work over the resources scheduled for the project. Other projects within the organization are ignored.

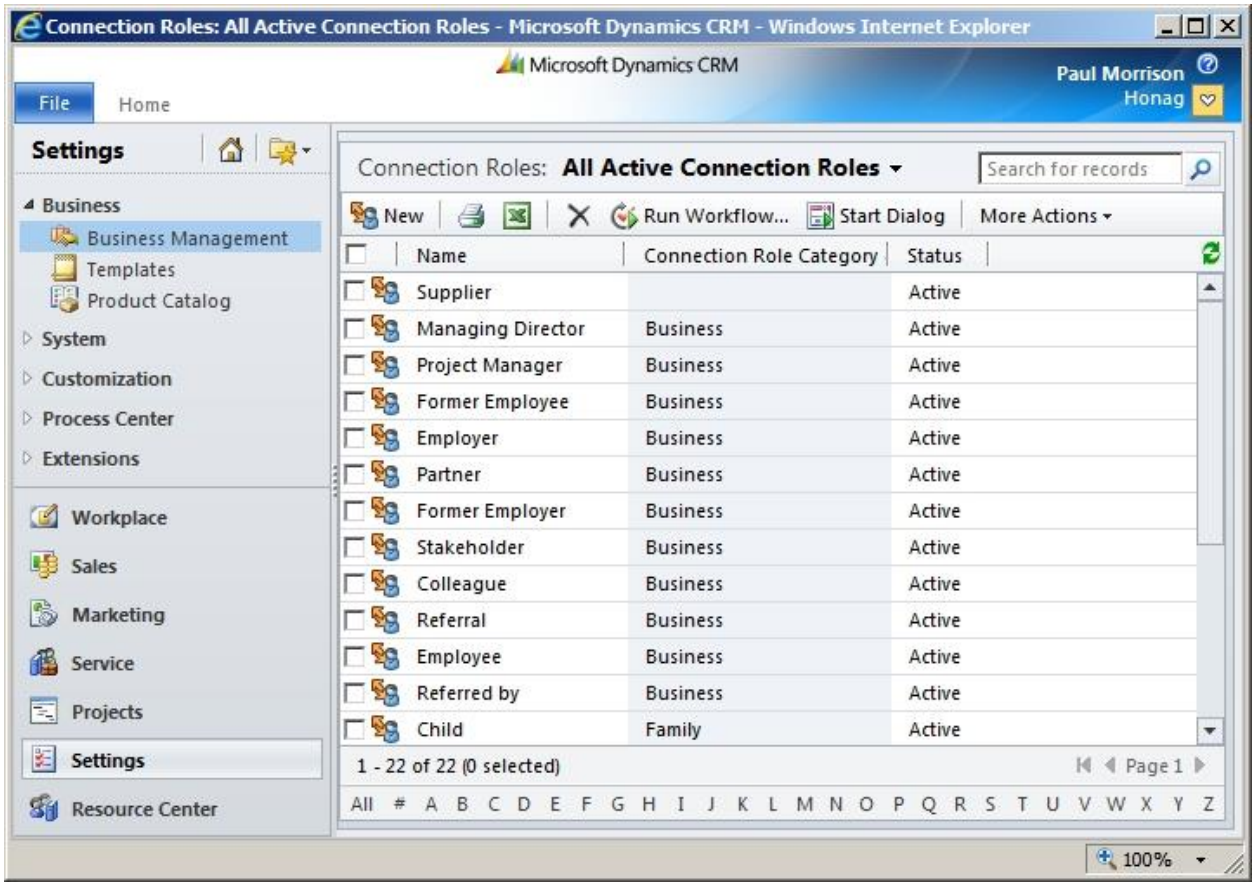
5.3.7 Team Members



Employees and/or services scheduled for the relevant project node are stored for team members; how many man-days of work have been scheduled and how many man-days of work have already been entered by the respective resources.

5.3.8 Connections

Connections are a standard function in Microsoft CRM 2011. The 4th module uses connections to store all relevant information about other objects (contacts, accounts, etc.) within Microsoft CRM. Thus, example.g. individually defined roles can be used to classify and store all the contacts of customers and/or project partners. Additional connections to classify your customers and/or partner contacts can be created in the Connection Roles area under Business Management in Microsoft CRM Settings.



More information on connection roles and their management is available in the Microsoft CRM 2011 User Guide.

5.4 Settlement pane

5.4.1 Orders

Under **Orders** are all the orders assigned to the project. Multiple orders can be assigned to a project (e.g. the initial order plus subsequent follow-up orders).

Projects can be generated from orders. All relevant information for the project is transferred automatically.

The orders are necessary to access information relevant to billing. Please refer to section 12.1.3 for more information.

5.4.2 Billing

The billing function allows detailed analysis for all services within the project for a selected time period, and then based on this, allows a decision on the services invoiced to the customer. For this, all of the services selected for billing are kept in a timesheet.

Based upon the underlying order for the project and the timesheet, the billing function calculates the amounts invoiced to the customer and generates an invoice within Microsoft CRM, if required.

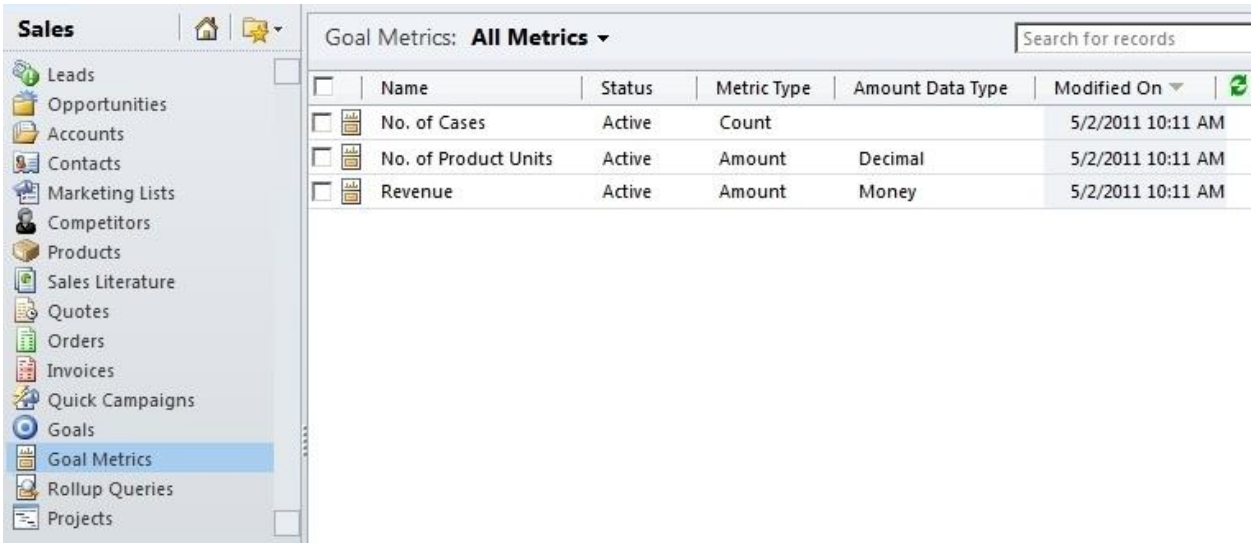
Please refer to section 11.9 for more information on the billing function.

5.4.3 Timesheets

In this area, are all timesheets created for the relevant project so far. Active timesheets are still being processed by the Project Manager. Inactive timesheets have already been billed completely. Timesheets can also be used to generate the relevant printouts for the customer as reports (e.g. PDF), see section 11.9.

5.5 Controlling pane

5.5.1 Goals



We recommend the use of goals for active control of your projects. Goals are a standard function of Microsoft CRM. A goal metric for revenue already exists in the goal metrics. Add another metric for **"Number of man-days"** to the goal metrics.

By specifying goals in your projects or in dedicated project nodes, you are able to define particular focus areas for your Project Managers and specify goals (as money or work). Reports and/or dashboard charts can be used to monitor these.

***Tip**: General information on using Microsoft CRM 2011 goals and the settings for the goal metrics is available in the Microsoft CRM 2011 User Documentation for Module (Sales).*

5.5.2 Audit History

If you have Auditing for entity "Project", all changes to the data in the form are stored in the Auditing History, including when the change was made and by whom.

***Note**: As all project entries are extrapolated to the project in real-time, all fields of type **"Actual MD"** work and type **"Costs"** are changed very often. We therefore recommend the explicit exclusion of these fields from the monitoring process. Only include these fields in the monitoring process when they are urgently required for the analyses and when you can guarantee that your system is powerful enough and adequate resources are in place to store the additional data volume.*

6 Structuring projects

6.1 Creating lower-level project elements

Depending on the project size and structure, it may be sensible to subdivide the project into more sub-elements. To do so, the following level types are available:

- Program: Use programs to bundle projects with related goals related as part of your multi-project management.
- Project: A onetime undertaking with start and end dates, possibly comprising of multiple synchronized activities, taking into consideration the constraints pertaining to time and resources to meet the defined goal.
- Phase: The phase represents the most general subdivision of a project, for example: for building a house, phase 1: planning and phase 2: construction. Phases can themselves contain subprojects, work packages and milestones. Phases should be used to create time-based brackets rather than content-based ones.
- Subproject: Subprojects can be a content-based subdivision of a project or phase, for example; in the "Construction" phase of the house building, subproject 1 is the bare brickwork and subproject 2 interior work. Subprojects don't have to be positioned underneath a phase and can instead be positioned directly below a project.
- Work package: Work packages represent the second smallest organizational unit within the project structure, e.g.: in the "bare brickwork" subproject, work packages can be water installation and heat insulation. Work packages can also be used directly underneath projects depending on your project structure (e.g. in small-scale projects).
- Milestone: A milestone is synonymous with a point in a project that is vital for the progress of the project. In the house building project, for example, work cannot continue until milestone "foundations complete" has been finished. Milestones can be defined at any place and on any level within the project.

Within these level types, dedicated tasks, appointments and other activities can be scheduled anywhere for specific dates. The only exception is the milestone.

6.1.1 Structuring projects

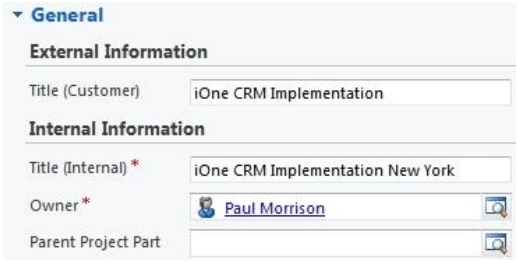
Before creating the project elements, thoroughly thinking through the fundamental structure of the project and the interrelations of individual phases, subprojects and work packages is recommended. By doing so, you are able to create in just a few steps the sub elements and specify their positions within the project.

Use the Gantt chart or the WBS to create the project structure, as described in Section 5.3.2.

6.1.2 Relocating project nodes

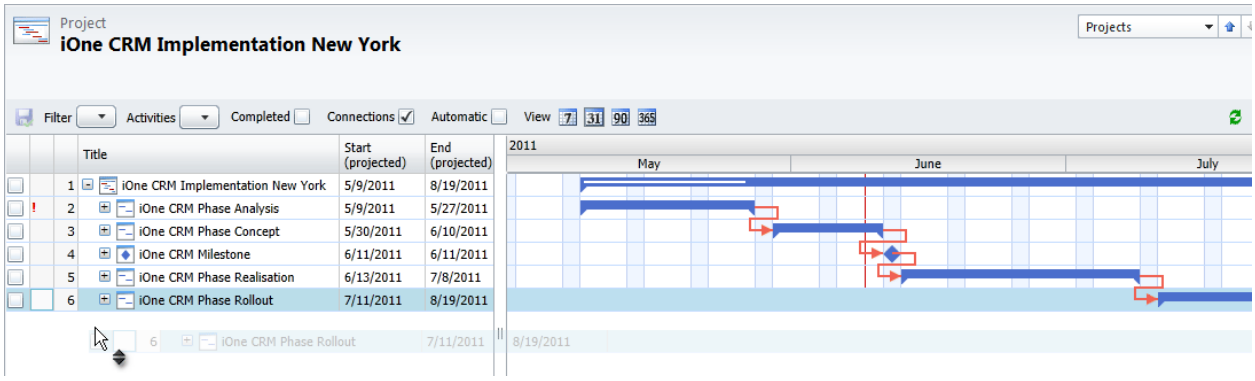
If you have established that a project node is not at the correct place within the project hierarchy, you can correct it as follows.

Open the project node in question by clicking the line number of the relevant element. In lookup "**Parent Project Part"**, correct the project node underneath which you wish to position this project part, and save the changes.

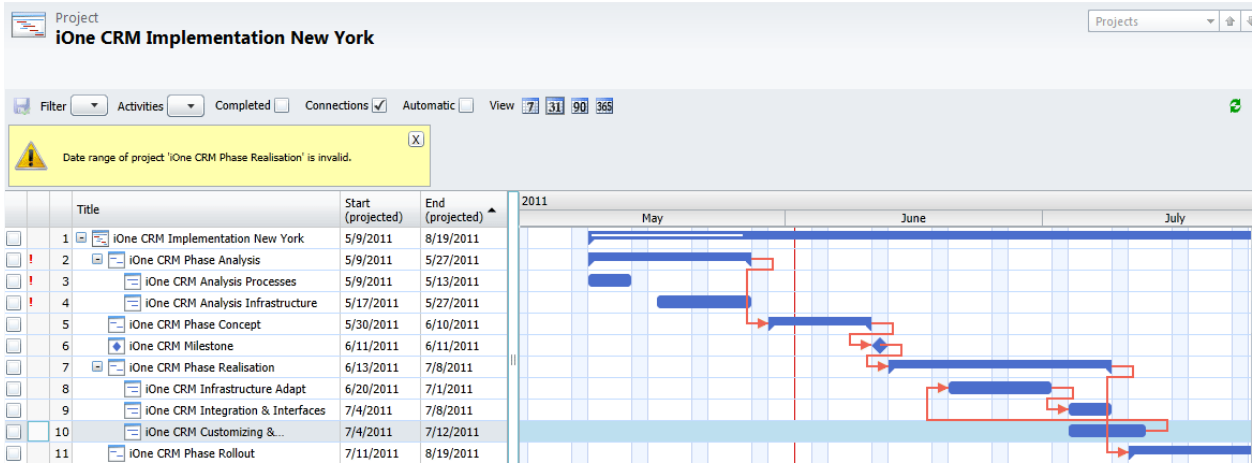


To view the change in the Gantt or the Work Breakdown Structure, you may need to refresh the view.

You can easily make changes directly in Gantt or Work Breakdown Structure by using the Drag & Drop function. To move the node, using drag and drop, you move the mouse to the second column of the corresponding node (in WBS or Gantt) and fix it with the left mouse click, dragging it to the desired location in the structure. Once you release the left click, the node is moved to the new location, placed the new structure. Thus, the relocated node receives a new, higher-ranking, node.



Should the relocated node (after the move) have a different date range, it is recommended that the start and end dates correlate with those of the moved node; you will be informed of this via an alert.



6.1.3 Passing down of status reasons

CRM-Project passes on status reason changes to parent project nodes directly to sub-project parts. If, for example, the status reason of the main project is changed from "Planning" to "Processing", all the status reasons of the nodes underneath also change to "Processing". Project nodes with an inactive state (e.g. Completed) are excluded from the automatic status reason change.

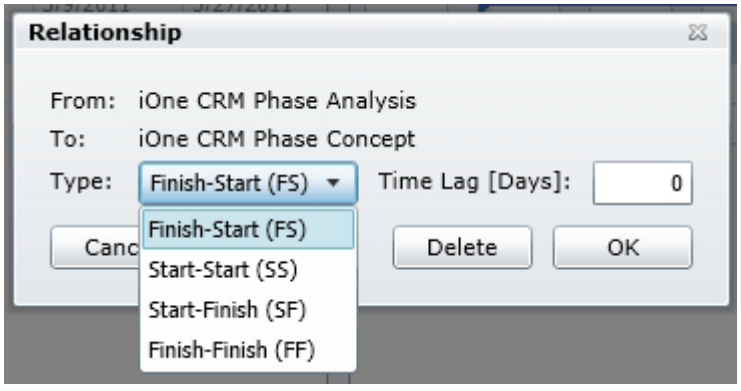
6.2 Predecessor/successor relationships

CRM-Project provides the ability to define and show predecessor and successor relationships. Predecessor-successor relationships internal to the project can be defined within the project with the project-related Gantt chart or the WBS (see also 5.3.1.7).

The following relationships can be defined:

- Finish – Start (FS)
- Start – Start (SS)
- Start – Finish (SF)
- Finish – Finish (FF)

A time lag between the nodes can also be added.

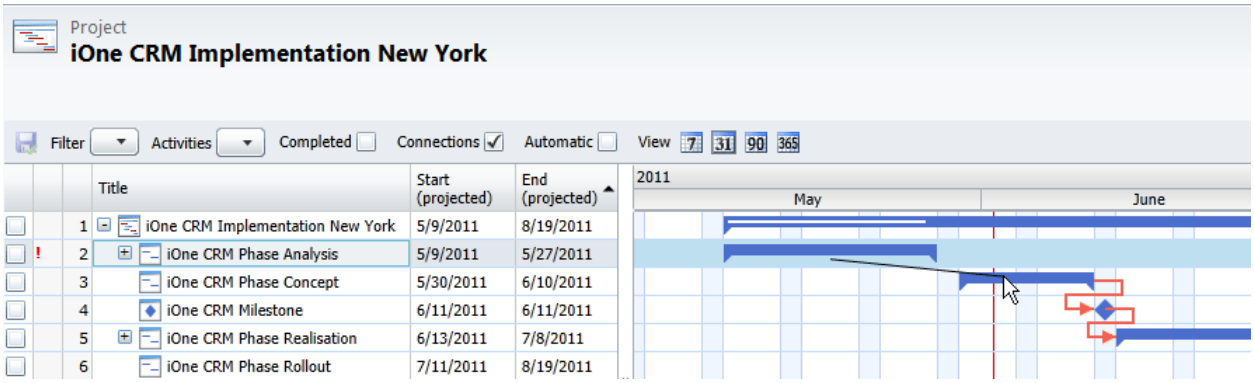


The drag and drop option in Gantt and PSP makes managing initial and successor relationships easy.

The checkbox "Connections", located in the header, must also be activated.

To create a connection between the two nodes, hold the left click and direct it to the middle of the node in the Gantt view; a line will appear. You will then drag the line to the next node. A window Relationship will open and from there you can select the connection type as well as determine the time interval for the relationship.

If the automatic mode is activated, the nodes are arranged according to the creation of the new relationship.



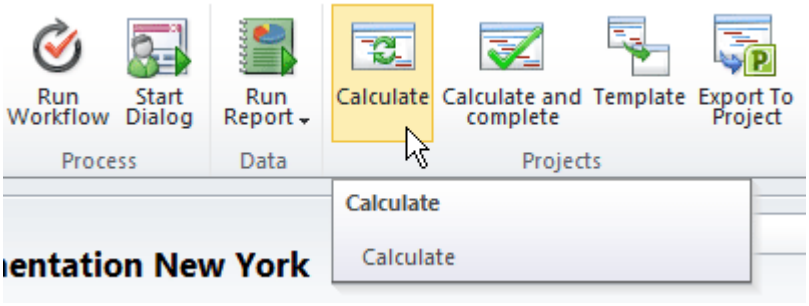
To remove the connection, place your mouse directly on the connection line and within the pop-up window, select **"delete"**.

By deactivating the **"Connections"** checkbox, you are able to hide the arrangement for the predecessor and successor.

***Tip**: Project nodes from other projects can also be defined as successors and predecessors. This means dependencies, between projects, can be documented as part of multi-project management. Use the global Gantt chart in the main Projects menu to define successors and predecessors.*

6.3 Calculating projects

If you are restructuring or reorganizing projects or project parts, incorrect values for added man-days, projected budgets or added costs may be displayed.



The **Calculate** function in the menu of every project can be used to correct the values.

- Open the project to be calculated.
- In the menu bar, click **Calculate**.
- Confirm the dialog with the **Start** button.
- The project is calculated (a wait message is displayed).

- A relevant message is displayed once the calculation has finished.

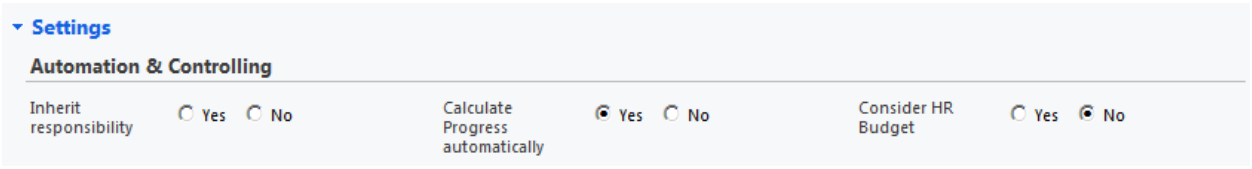
- Close the **"Calculate"** window and the project. Re-open the project to display all the newly calculated information in the project forms.

6.4 Budgeting

CRM-Project provides two ways of working with budgets.

- Allocation of budgets for all costs in the project node as a total (personnel costs, external costs, material costs, etc.).
- Splitting of the budget per-project node into a budget for personnel costs and a budget for all other costs.

The two variants are available for and can be applied differently for every project. The choice as to the procedure used within a project is controlled in the topmost project node of a project in the **"Settings"** area with **"Include personnel budget" (Yes/No)**. Option 1 corresponds to No and option 2 to Yes.



If the personnel budget is not viewed separately (option 1), only fields **Budget (Σ), Budget (Level)** and **Budget (Inherited)** are used. The information managed in these fields is displayed again in the **"Total Budget"** fields.

If the personnel budget is viewed separately (option 2), the Project Manager is given the option to assign all non-personnel costs via fields **Budget (Σ), Budget (Level)** and **Budget (Inherited)**. The budget for personnel is calculated automatically with the **"Budget Personnel Cost ..."** fields via the employees assigned in the planning table. The overall budget is shown in the **"Total Budget ..."** fields.

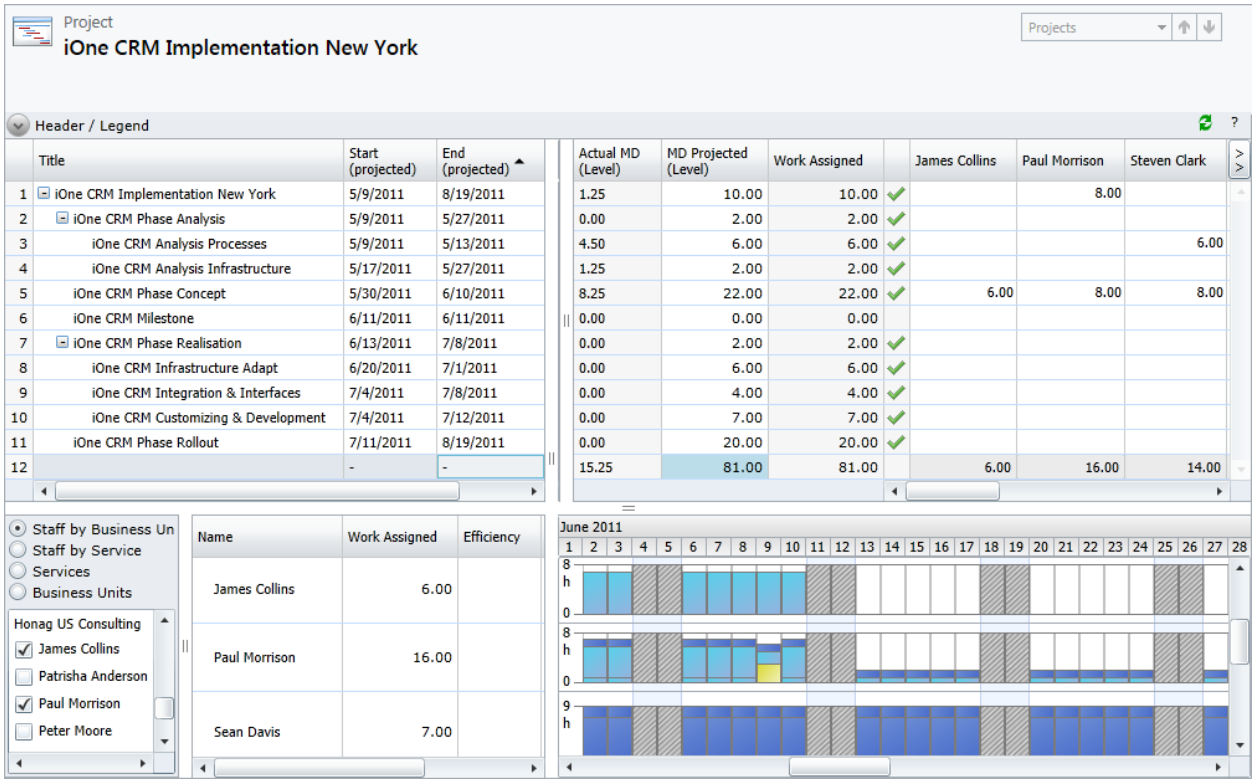
***Tip**: Changes to the budget and the "Consider HR Budget" button are only possible under the Planning project status. The budget is only calculated automatically via the "Recalculate" button, when the project is in the Planning status.*

7 Planning

By using the planning component of CRM-Project, it is possible to assign the required resources to the projects structured beforehand with the WBS or Gantt. The planner receives the resultant utilization directly as feedback in real-time via a graphical analysis.

7.1 Planning table

The planning table can be accessed in every project in the left-hand pane in the "Planning" area. The basic functionality is described in section 0.3.2.


Project
iOne CRM Implementation New York
Projects
Header / Legend
Title
Start (projected)
End (projected)
Actual MD (Level)
MD Projected (Level)
Work Assigned
James Collins
Paul Morrison
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1 iOne CRM Implementation New York 5/9/2011 8/19/2011 1.25 10.00 10.00 8.00
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3 iOne CRM Analysis Processes 5/9/2011 5/13/2011 4.50 6.00 6.00 6.00
4 iOne CRM Analysis Infrastructure 5/17/2011 5/27/2011 1.25 2.00 2.00
5 iOne CRM Phase Concept 5/30/2011 6/10/2011 8.25 22.00 22.00 6.00 8.00 8.00
6 iOne CRM Milestone 6/11/2011 6/11/2011 0.00 0.00 0.00
7 iOne CRM Phase Realisation 6/13/2011 7/8/2011 0.00 2.00 2.00
8 iOne CRM Infrastructure Adapt 6/20/2011 7/1/2011 0.00 6.00 6.00
9 iOne CRM Integration & Interfaces 7/4/2011 7/8/2011 0.00 4.00 4.00
10 iOne CRM Customizing & Development 7/4/2011 7/12/2011 0.00 7.00 7.00
11 iOne CRM Phase Rollout 7/11/2011 8/19/2011 0.00 20.00 20.00
12 - - 15.25 81.00 81.00 6.00 16.00 14.00
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Services
Business Units
Honag US Consulting
James Collins
Patrisha Anderson
Paul Morrison
Peter Moore
Name
Work Assigned
Efficiency
James Collins 6.00
Paul Morrison 16.00
Sean Davis 7.00
June 2011
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
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The resources available within your organization are available in the **"Staff by Business Units"**, **"Staff by Service"**, **"Services" and "Business Units"** lists. After selecting a service, business unit or an employee, it is listed in the table overview on the right-hand side as an additional column. The man-days assigned for the employee or service can be defined in this column.

After a value has been assigned, the resource utilization of the employees, services and/or business unit scheduled for this project node is displayed underneath the planning table. Within this resource list, the required service to be performed by the employee within the relevant project node can be selected in the line for the relevant employee. These services correspond to the services stored for the employee. If you work with efficiency factors (see section 7.3 for more details), the underlying efficiency factor for this employee on performing the selected service is also displayed.

As soon as all man-days of a project node have been distributed to the resources, a green tick is displayed in the column to the right of "Work assigned". A yellow triangle with an exclamation mark denotes that the value scheduled has been exceeded.

At the lower end of the list of project nodes, an additional line ahows the scheduled sums over all employees.

The employees, services or business unit scheduled for every project node, including work volumes scheduled, are stored under the relevant project node as team members.

***Note**: The planning component only includes future usage. If you are planning projects or single project nodes that are partially or completely in the past, schedule the entire work volume, of these project parts, from "today" until the end of the time period scheduled. The work volume already rendered is subtracted. In the most extreme case however, the scheduled project time period is completely in the past. Here the planning table sets all of the work still to be rendered to today's date because the services are "overdue".*

Tip: *The scheduled resources are only stored within the project as assigned when at least one scheduling has been entered on an arbitrary project level. Otherwise the resource no longer exists as a resource when re-opening the project plan, but can be selected at any time via the list of resources.*

Note: *Only those employees or Business Units set for "Activated for planning" in the User/Business Unit settings are displayed in the list of available resources.*

Tip: *If columns of employees are displayed in the list of scheduled project resources for which no type of work is scheduled in the project, it is because these employees have made entries for the project without having been scheduled for it. You are able to control authorization of entries by team members via authorization roles and approvals.*

7.2 Team members

For every project node there is a list of team members scheduled.

The team members are created by:

- scheduling an employee or service for the project node via the planning table and/or
- entering an employee for a project node for which he/she was not scheduled before.

Every team member entry contains the managed scheduled work volume (for this team member) as well as work already reported back within the project node. This information is used to calculate the work still open, and thus the utilization of employees and services.

Tip*: Team members form the basis for individual employees to control access authorization to the relevant project part. These types of configurations are directed, in particular, towards organizations with which read permission (to projects) is to be controlled; specifically, not every employee being granted access to all projects.*

Use Sharing for the explicit control of project access for your team members. The sharing can be activated via the workflows or plug-in of Microsoft CRM by team members.

Tip*: The "My project participation" view can be found in the Projects menu. Here you can see all the project nodes in which you are scheduled in as a team member.*

7.3 Efficiency factor

An efficiency factor can be stored for every employee and for all services provided by that employee. The configuration for this is in the "Settings" under menu option **"Competences"** menu option. Role "CRM-Project HR Manager" is required to read and write the information. An efficiency factor provides information how well an employee can run which service.

- A value of 1.00 means that the service is performed at a normal speed by the employee.
- A value less than 1.00 means that the employee has less experience in this service and therefore, cannot complete the specific service as well or as quickly as someone with more experience. For example, the setting 0.50 means that an employee requires 2 days to complete a task which requires only 1.
- An efficiency factor greater than 1.00 means the employee can complete the work in a shorter time span than normal. For example, the setting 1.50 means that the employee can complete a task in half the time needed. Therefore, a service requiring 3 days of work would be done by this employee in 2.

If no value is specified for the efficiency factor, the default value is 1.00.

8 Resource utilization

Information on actual and projected utilizations of available resources is indispensable in planning projects and as the basis for decision-making. CRM-Project makes available three different ways to show resource utilization.

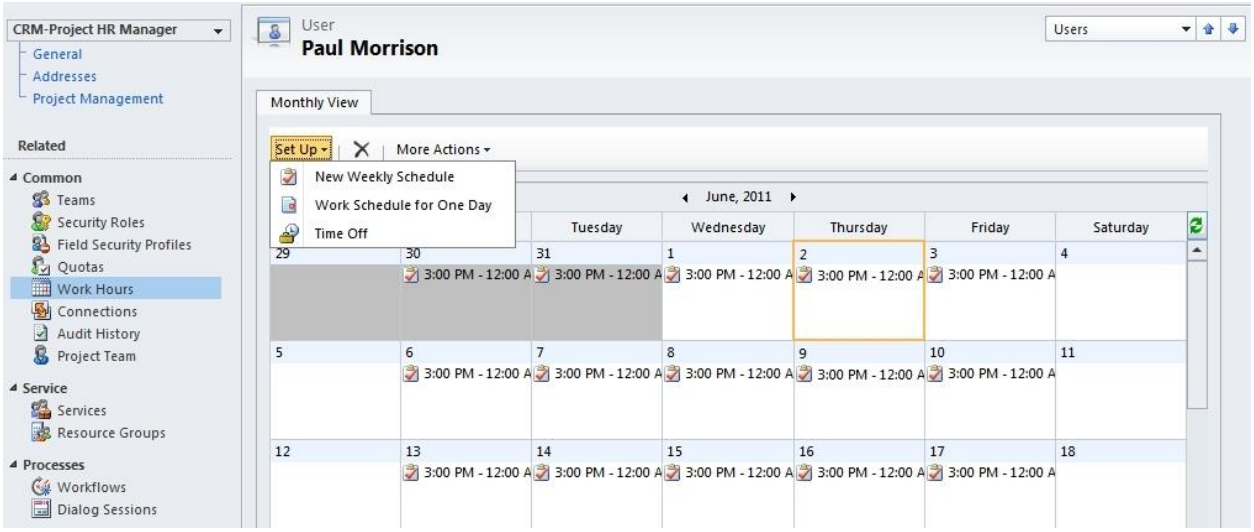
- Global resource utilization over all projects and all resources in the organization.
- Resource utilization for a specific project and the resources scheduled there.
- Personal utilization of every single employee within his or her work schedule.

8.1 Prerequisites

The fundamental prerequisite for resource planning are up-to-date information on the availability of existing resources. This is why the following settings must be configured beforehand in the CRM system.

8.1.1 Employee work hours

For information on the availability of employees to be shown correctly, the work hours of employees must be set correctly in the CRM system. This is a standard function of Microsoft Dynamics CRM. The settings must be configured in the calendar of individual users.



***Note**: Always set the selection to "Observe" in the "Business closures" area to ensure that public holidays and vacation are shown correctly in resource planning.*

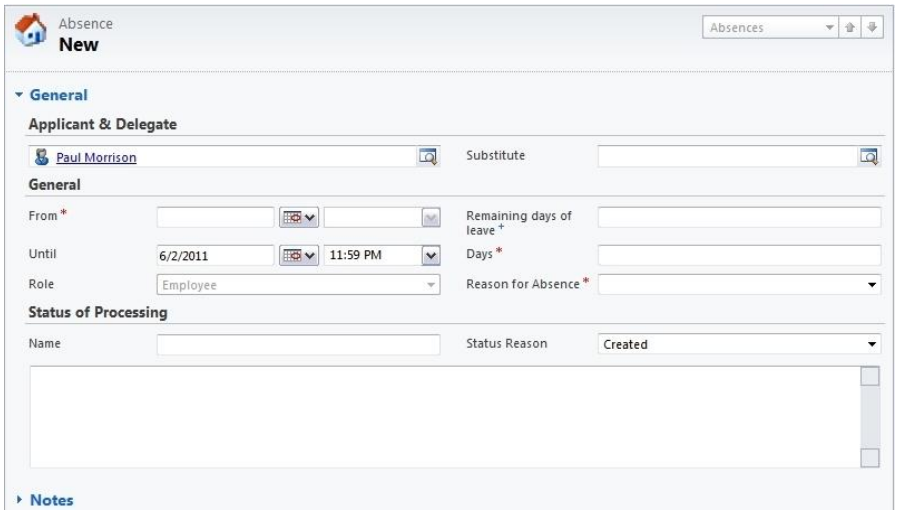
8.1.2 Absence

In addition to the regular work hours of employees, correctly entered absences are also a requirement for correct resource availability and for resultant scheduling. Absence times (vacation, sickness, etc.) can be set in Vacation and Absence Administration. Here,

- Public holidays and business closures are automatically set in the Microsoft CRM Work Hours Calendar for all employees (across the organization).
- Leave, illness and other absence entries are made in the individual calendar of the employee in question.

8.1.2.1 Vacation

Vacation is managed in the Requests for Leave area. This is in the individual area of the project menu or alternatively in the workplace showing the "Planning" menu area. This menu option is used to access the individual Absence Administration of the employee, enabling both the creation of requests for leave and also the request for compensatory time-off.



Requests for leave are used to schedule employee absences. Compensational time-off is credited as "compensation days" to an employee's holiday entitlement. Compensational leave can occur for the following reasons, for example:

- When an employee has cut a vacation short (for work reasons),
- A vacation that has been approved cannot be taken for operational reasons or
- The employee has accumulated a certain amount of overtime which is being given back to them in vacation days.

Requests for leave and compensational time-off are supported through a multi-layer approval process, using Microsoft CRM workflows and activities. These workflows can be configured to the rules of your organization, in the Processes area of Microsoft CRM settings. In the standard configuration, the following major process steps are included, in particular:

- Substitute selection when creating a request,
- Substitution process whereby the user selected approves/accepts their role as substitute,
- Supervisor (manager) vacation approval,
- HR approval and vacation system entry.

After the vacation substitute has been confirmed, approved by superior/manager and by HR, the vacation days are automatically deducted from the employee's remaining days of leave, or added, in the case of compensational time-off.

Employees responsible for certain roles, such as "Manager" and "Head of HR", are defined in the user settings.

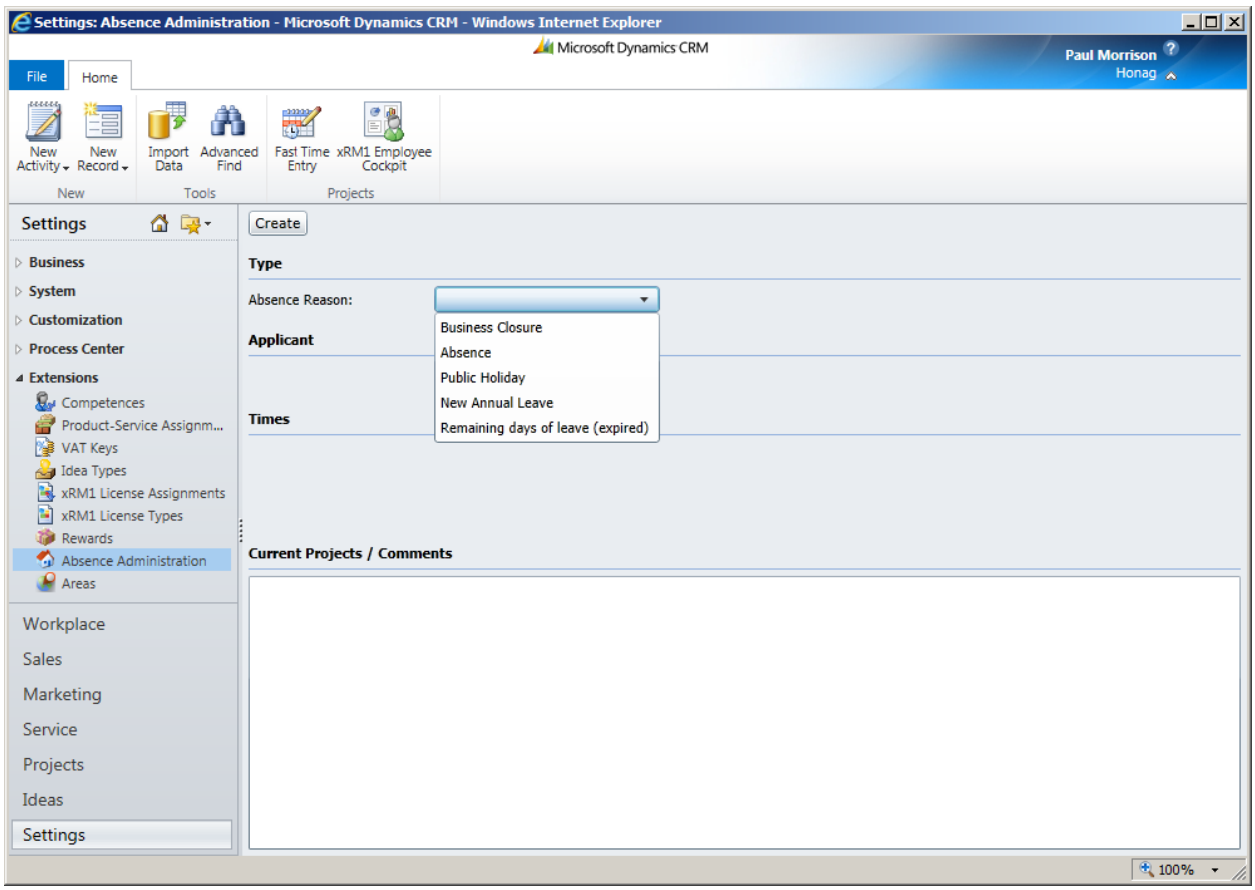
Note: *Role CRM-Project "CRM-Project Absence Submitter" is required to use the request for leave function.*

Note: *When you're requesting leave for less than a day, the time away from work must be entered. For example: for a standard 8:00am to 4pm (16:00) work day, a half vacation day (in the morning) will be entered as 8:00am to 12:00pm.*

8.1.2.2 Absence Administration

Illness, public holidays and business closures can all be managed centrally here by the HR department.

Role "CRM-Project HR Manager" is required for access to this area.



8.1.2.2.1 Business Closure

The ***"Business Closure"*** status allows business closures to be created. For all users with **"CRM-Project Absence Submitter"** role, the relevant number of vacation days are subtracted from the remaining holiday, and a business closure is generated in the Microsoft CRM work time calendar.

8.1.2.2.2 Absence

"Absence" is used to flag an employee as "not available" for a certain period of time. The number of remaining vacation days for this employee is not changed.

8.1.2.2.3 Public holidays

Selecting **Public holiday** adds an absence for all relevant employees for the date selected. Unlike selecting business closure, there is no change to the number of remaining vacation days.

8.1.2.2.4 New annual holiday

"New annual holiday" is available, if you want to enter new annual holiday for all employees. The system takes the ***"Annual holiday"*** value for every employee, stores it for every user in the user entity, and adds any available holiday remaining.

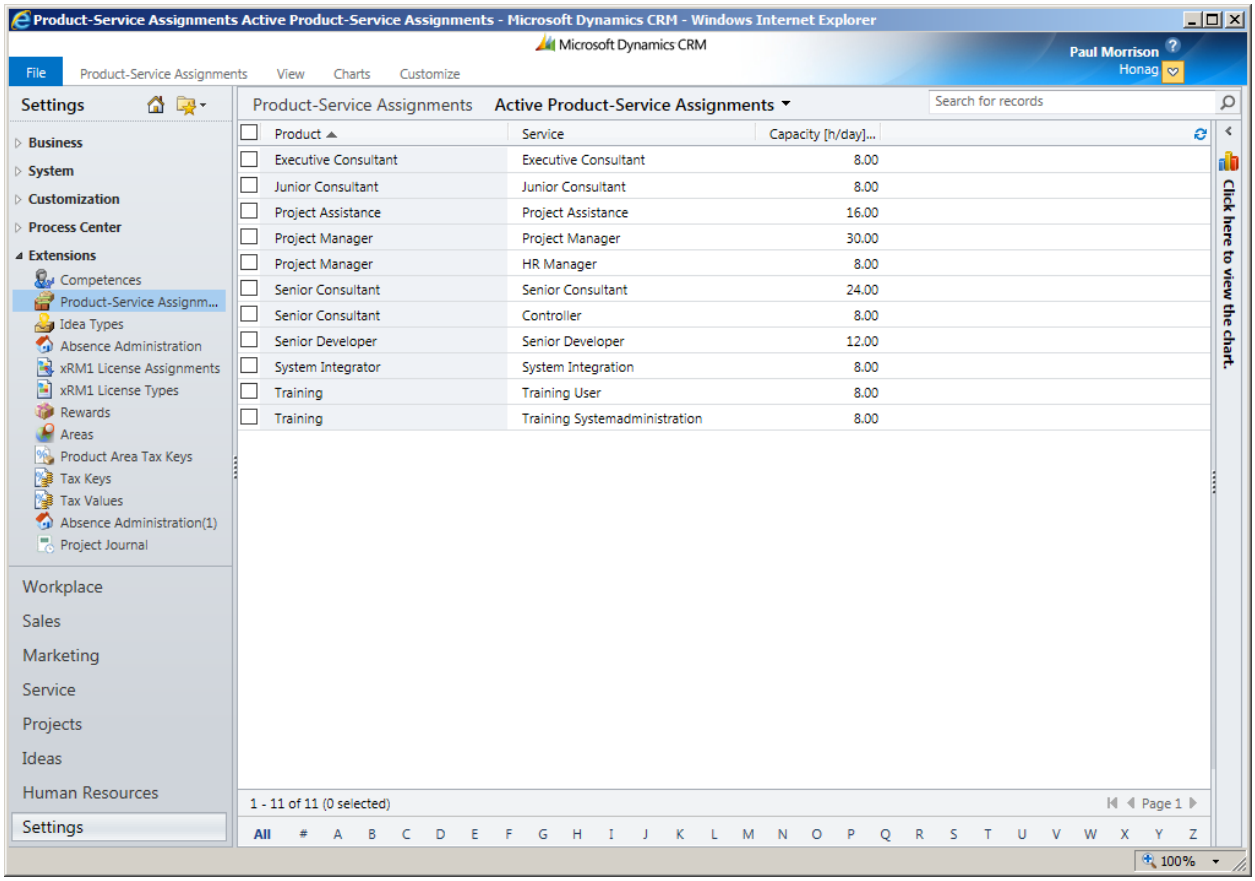
Please set the amount of days for "Annual leave" of every employee in the user mask (see section 16 for more details).

8.1.2.2.5 Remaining days of vacation (expired)

"Remaining days of vacation (expired)" is used for every employee individually, to deduct unused vacation from the vacation days allotted. This process must be done by the HR department for every employee. The function automatically reduces the remaining vacation days for that user.

8.1.3 Capacities for services

For planning the usage of services or service types, capacities (for available services) are set in the 'Product-Service Assignment' area, under the "Settings" => "Extensions menu".



The services made available by your organization must be created beforehand in Microsoft CRM. The Product-Service Assignment area enables you, for every service, to define the scope (hours/day) in which the service is available. This is the basis for scheduling work volumes for this service.

8.2 Representation for resource utilization

Representation of resource utilization takes into account the following elements for capacity planning:

- Project nodes as well as work volume contained therein, for the relevant team member,
- Appointments and,
- Service activities.

Appointments and service activities are shown with the relevant scope (hours) scheduled as utilization for the relevant resource on the scheduled date (day), and are also shown in yellow.

For project nodes in which the resource in question is scheduled as a team member, the volume of work (projected work minus work already entered) in this project node is spread evenly over the time period. The lower the volume of work (or the longer the time), the lower the utilization per day of the employee. The utilization resulting from project nodes is shown in blue for projects in processing and in orange for projects in planning.

Appointments and service activities having a project node as a reference, for which the employee is scheduled as a team member, are interpreted as date blockers for the tasks within the project node. These times are thus deducted from the total service volume within the assigned project node and the remaining work volume is spread over the time of the project node.

8.2.1 Organization-wide resource utilization

Organization-wide resource utilization can be found under the main **"Projects"** menu option. This view displays all the projects ongoing within the time period selected with the employees and service involved.

***Tip**: For more details on the activities scheduled for an employee on a particular day, simply move the mouse to that day; displayed next to the mouse, as a tool, is the specific day schedule.*

8.2.2 Project-related resource utilization

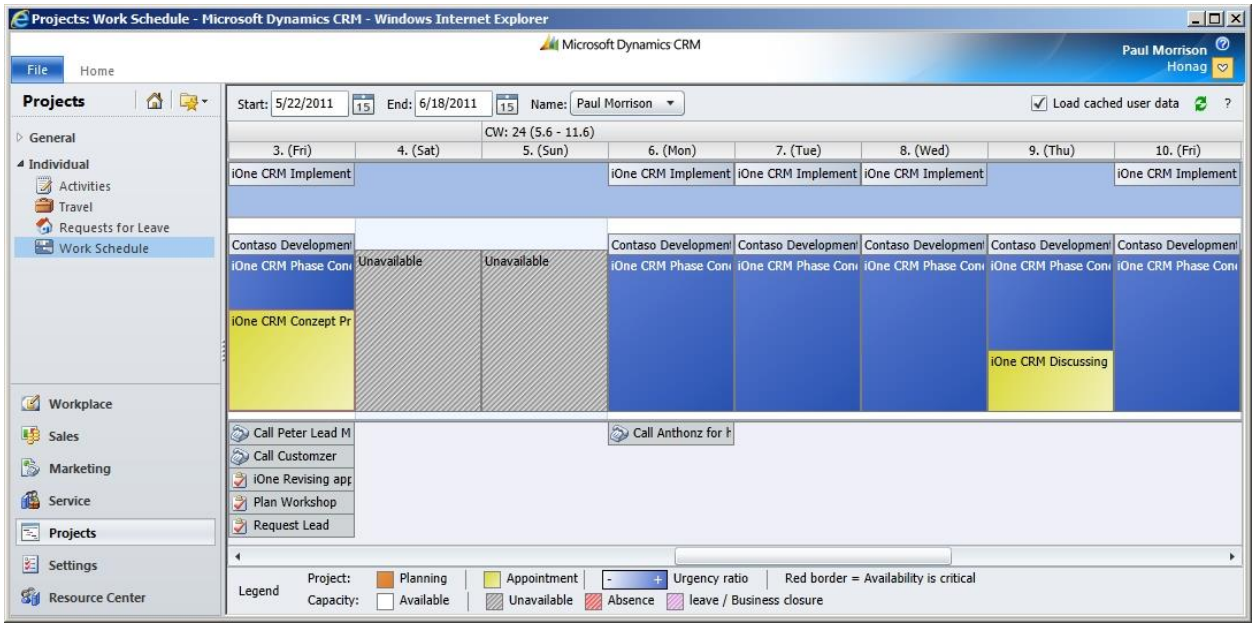
Project-related utilization is available for every project from the **Project Utilization** menu option. The utilization values displayed there pertain only to work from the respective project. This view gives the Project Manager an overview of which resources are scheduled in which time frame for this project. No utilizations from other projects are shown.

8.2.3 Individual resource utilization – the work schedule

The work schedule provides employees an overview of the work scheduled for them (project work, appointments, tasks, etc.).

8.2.3.1 View

Specific appointments and service activities are shown on the relevant days, as are all other CRM activities. All of the scheduled project nodes within this time period are also displayed for this employee.



The relevant details for the work packages in question are also available by mouse over. The following data are displayed:

- Project name,
- Scheduled work for the specific day,
- Assigned work and volume already completed for the project node and,
- Start and end of the project node.

The height of a package denotes the volume with which the package is scheduled for this day. The height is spread as evenly as possible over the duration of the node (e.g. a subproject) in due consideration of the time windows available for utilization. The higher a package is, the more time of the day is scheduled for the node. Particularly small work packages (< 1h / day) are shown separately with a fixed size on the top border for improved clarity and ease-of-use.

The color of a package denotes the urgency of this node. The darker the package, the more urgent is the completion. The color is derived from the remaining assigned work (assigned work minus volume already complete) and the remaining overall work time of the employee until the scheduled end of the project node is reached.

A red frame around the work package is used for additional color-based escalation for particularly urgent work packages. This escalation specifies that from the current time, the employee is not to work on anything other than the work package marked red (if it can be completed within time in line with the availability of resources). The red frame is also displayed for overdue work (e.g. scheduled end yesterday).

***Tip**: The work schedule is accessed for the user currently logged in. Alternatively, you can view the work schedule of other users via the Name pick list. For complete and correct information of the work schedules of other users however, you require the relevant permissions for reading activities and project scheduling for other users. These can be set with the Microsoft CRM security roles.*

8.2.3.2 Logic of scheduling project work

In the utilization of a project node, work packages are automatically positioned around existing appointments and projects within the project time period scheduled.

Appointments that are assigned to a certain project node (lookup reference for specific project nodes) are included into the scheduled time; this means that the remaining work volume to be distributed within the time frame is lower. Appointments not belonging to this project are treated as "unavailable time" (in terms of the project node) and the work of the project node is "scheduled around these dates"; this increases the work volume for other available days.

Example:

A project node is scheduled for duration of one week (Monday – Friday) and the employee is assigned 2.5 MD. Suppose the employee works 8 hours per day, and no other work is scheduled for this employee during this week. 4 hours/day (= 20 hours = 2.5 MD à 8 hours) is therefore planned evenly in the employee's work schedule.

Now the employee plans to complete 1 day of the work (= 8 hours) from this project node on Monday. He creates an appointment and assigns it with a reference to the project node. The remaining work for the project node is reduced to 1.5 MD for the period Tuesday to Friday. This means only 3 hours/day (= 12 hours) is scheduled for the employee for these 4 days.

However, if the employee plans on Monday an 8-hour appointment for another project, all of the 2.5 MD scheduled are allocated to the remaining days (Tuesday to Friday). This increases the utilization per day for this work package to 5 hours/day (20 hours/4 days).

Also, the logic of the application prioritizes the scheduling in the following order:

- Appointments and service activities
- Projects with status reason Processing
- Projects with status reason Planning

Sorting is by date (from the bottom up) within each of these groups. This means that project nodes only in Planning are at the very top, and thus can be found first near a potential overload; for projects with the state as Processing, the last scheduled work is at the very top.

All elements (appointments, project nodes and activities) can be clicked in the work schedule and open up in a new window.

9 Time and work entry

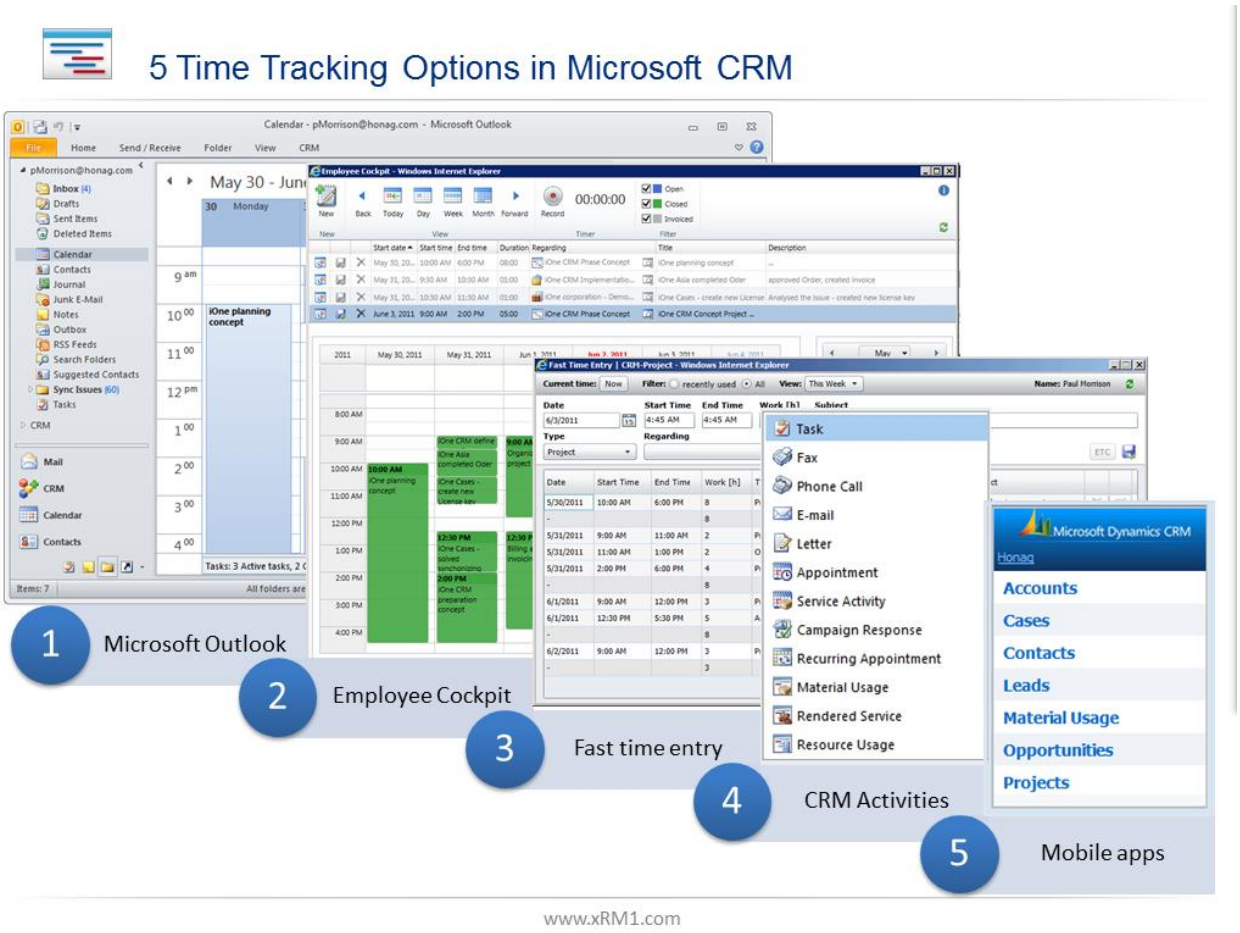
CRM-Project contains many diverse ways of time entry. Ease-of-use for the employee is the focus. There are a total of different ways to enter data.

Available are:

- a CRM Outlook Client,
- a fast entry mask (FTE) for time entry
- Employee Cockpit
- all activity types of Microsoft CRM and
- mobile apps

Work entry for external resources is also supported by the entry mask for rendered services.

You can also unlock selected activities for mobile use (via Microsoft CRM Standard Customizing) as well as create time recording through your smartphone.



Work within projects can be entered very easily via all available CRM activity types. All appointments, service activities, tasks, etc. are assigned the work time for this purpose, and given a relationship to the respective project part. As soon as the activity is marked as complete, time entry is concluded. Methodical usage of standard CRM activities assures that all services entered (depending on type) are also available at the usual positions (e.g. tasks and phone calls in the activities history; appointments and service activities additionally in Outlook and CRM calendar, etc.)

A fast entry mask for time entry is also available. This is used in particular for the fast entry of smaller work volumes. The fast entry mask is of course based on standard Microsoft CRM technologies (here: Silverlight) and so can be used for time entry outside your Intranet, too.

You can enter and edit your work hours very fast and easy with the user friendly and flexible Employee Cockpit. Based on the 100% HTML5 and JavaScript technology, it can also be used from outside CRM (integrated into your intranet page, Outlook start page, SharePoint site, etc.)

Lastly, a collective entry mask for services is also available. It is designed for applications in which services are not entered in detail but are aggregated as totals. One such application, for example, is a Project Manager who receives

(as a total) only the man-days of the department to be billed which however should be used as input to the project costs. Another good example is the time entry of consultants in long-running consultancy projects, who are only reporting the entire project time (for a single or a few project times, in man days) at the end of the week.

With the optional application of all time recording options, you can make the right time entry method for every project, team or to particular employees available.

Various views and reports are available for entry controlling which support employees and the Project Manager and higher-level controlling. Employees can e.g. identify entry gaps in their Outlook calendars.

9.1 Time entry via standard CRM activities

Services for a project are entered via the activities of Microsoft CRM. Virtually all activity types can be used (except campaign responses). In CRM-Project, the booking of services to a project is called "entry" by project members. Entering triggers the calculations run by CRM-Project.

Times are entered on successful completion of an activity. Activities can be assigned to any projects for scheduling purposes without marking an activity as completed. Neither work (in man-days) nor costs (in monetary amounts) are entered to the project before these activities are complete. Cancelled and deleted activities are also not included in the time entry of a project by CRM-Project.

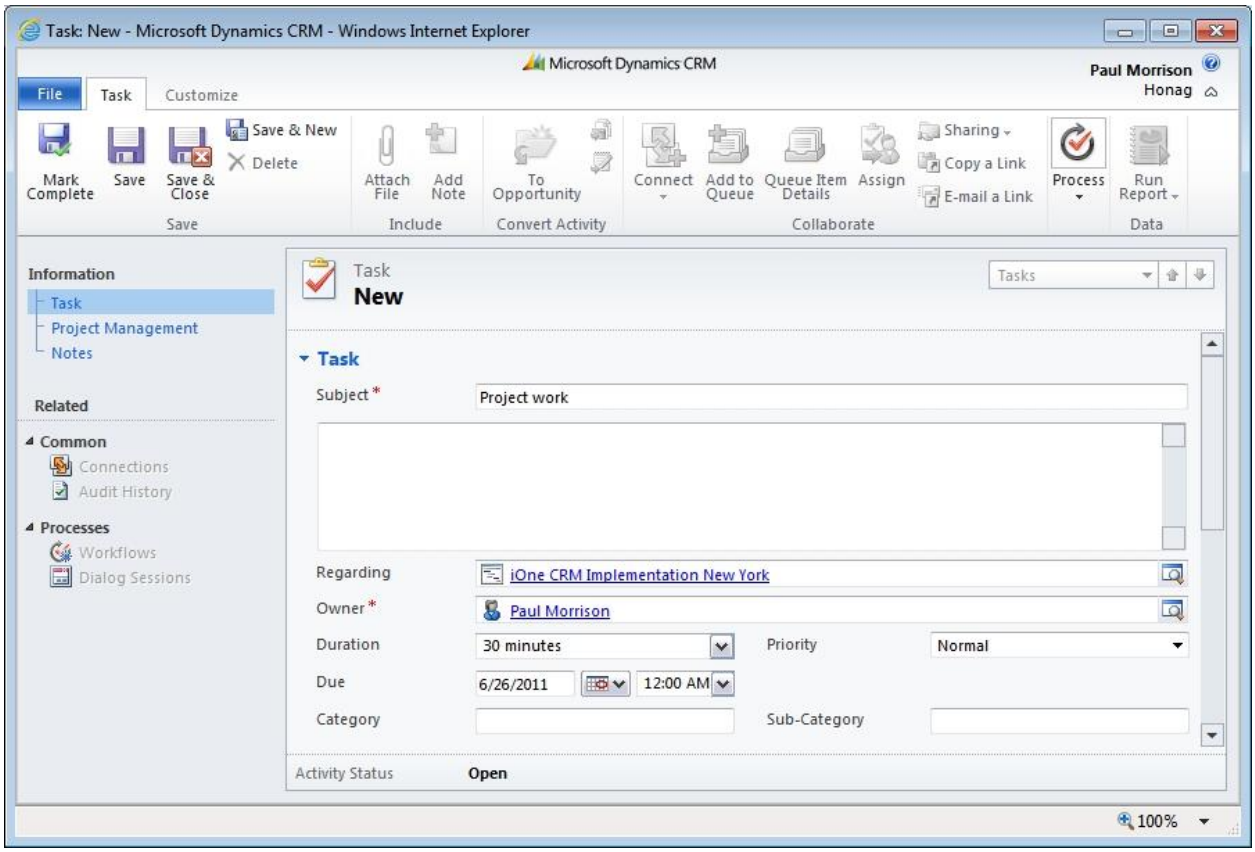
Activities can also be assigned to other employees via the standard Microsoft CRM functions. Tasks for example can be delegated to the relevant experts within the project team. This way, the Project Manager is able to allocate project tasks to team members, and also team members are able to share the tasks amongst themselves (such as in the event of illness or vacation).

***Tip**: Please note that in relation to the assignment of tasks, restrictions may be in place resulting from the security roles defined in your CRM system. Please refer to the standard Microsoft CRM documentation for more information.*

All of the fields that CRM-Project adds to the standard Microsoft CRM activities are placed in a separate "Project Management" section. This gives the greatest level of flexibility in your individual customization.

9.1.1 Tasks, phone calls, letters, faxes

Activities of type Task, Phone call, Letter and Fax behave in the same way.



For CRM-Project, it is important that the **Regarding** field contains the project node to which you would like to assign the service. For this project node, entering the activity increases both completion time and cost. The **Duration**

required to complete the activity is used by CRM-Project as the basis for entering the work volume. To enter the activity in the project, select **Mark Complete** to save the activity, and at the same time to enter it for the project.

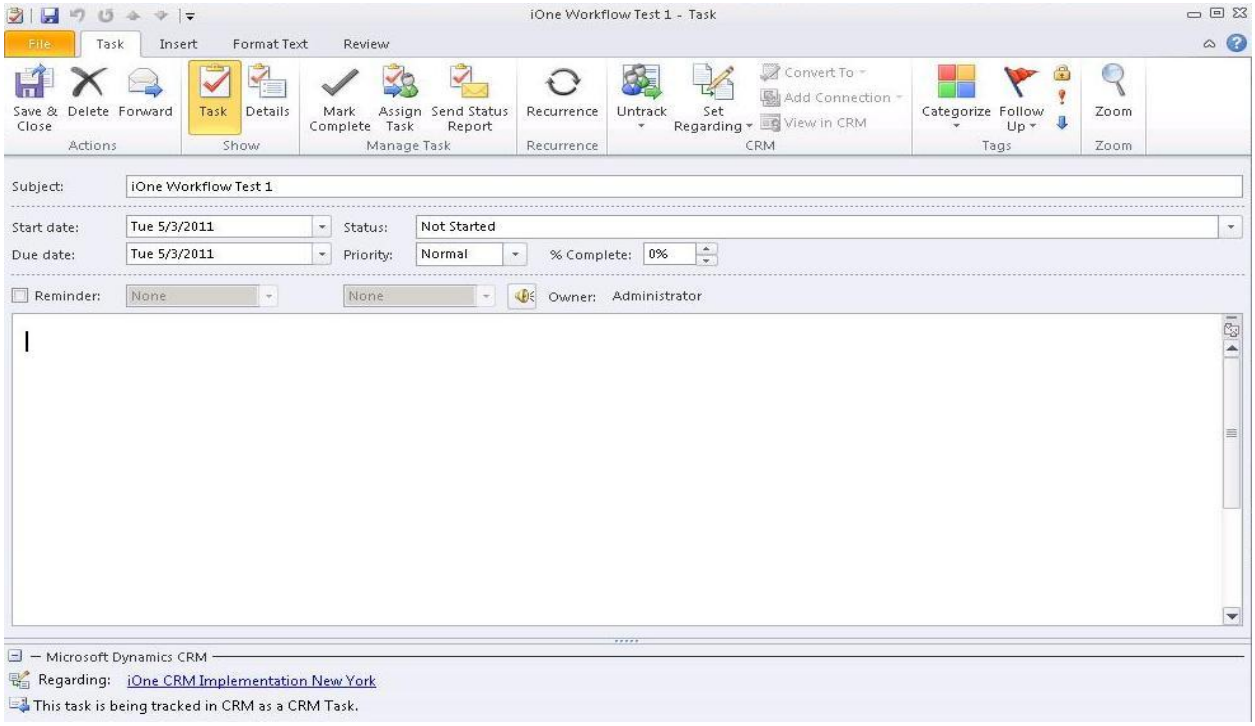
Note: *For activity types Task, Phone call, Letter and Fax, the project member who carried out the activity, or under whom the activity is to be entered for the project, must be entered as owner.*

Tip: *If you are simply planning an activity to carry it out or complete in the future (i.e. the information and values in the activity can still be changed), select* ***Save & Close*** *to close the activity. You can open the activity again at a later time to modify it and then* ***Mark Complete*** *to enter it for the project.*

Note*: CRM-Project does not support entries for activities of type Task, Phone call, Fax or Letter that contain more than 8 hours, or one man-day, of work. If you want to enter these activities types for more than 8 hours on one day, it is necessary to create multiple activities.*

You can of course also create an activity directly from a project node and enter it. Open the project node in which you carried out work and select **New: Activity** in the left-hand **Activities** link in the menu bar. This automatically assigns the project node to the **Regarding** field.

CRM-Project is the 4th module for Microsoft CRM and of course also supports the Microsoft CRM Outlook client. This means you can also create entries using Outlook tasks.

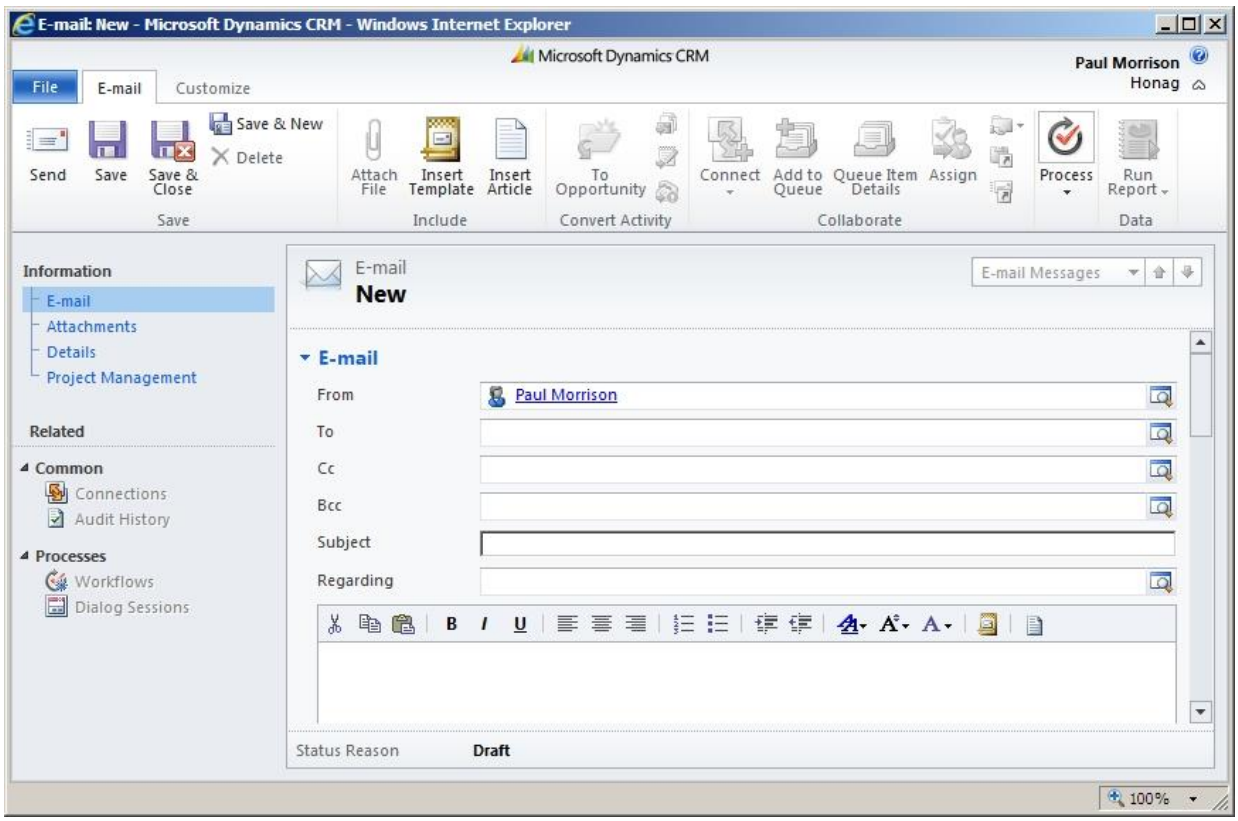


Use the CRM integration of the Microsoft CRM Outlook client (**Track in CRM** button) to connect the task to Microsoft CRM and classify the activity type in the process (Task, Letter, Fax or Phone call). Also specify a reference to a project or subproject. As soon as the task is **Marked Complete**, it is entered for the project.

9.1.2 E-mails

Both incoming and outgoing e-mails with reference to a project are entered in CRM-Project. The determining factor here for entry is that the e-mail has state **Received** or **Sent**. The owner of the e-mail is also used here for entry (as executing project participant).

For incoming e-mails, it is enough to elevate them up to Microsoft CRM and to relate them to the relevant project node. Outgoing e-mails need to be sent in order to be entered with the relevant work in CRM-Project. Otherwise they are treated as scheduled activities.



The same applies for e-mails created with Microsoft Outlook. Usage is the same as for Tasks, Phone calls, etc.

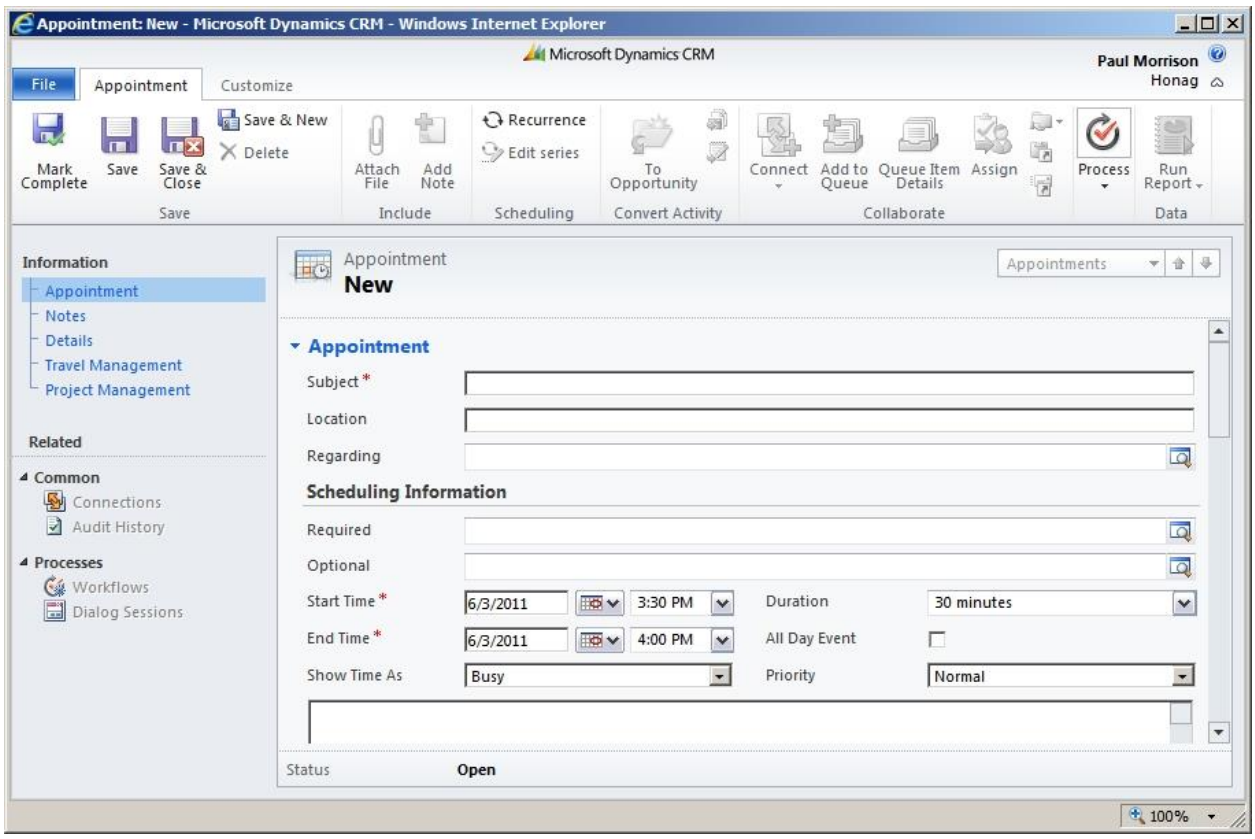
9.1.3 Appointments and service activities

Activities of type Appointment and Service activity are handled almost the same.

Enter all the information you require for the appointment. For CRM-Project, it is important that the **Regarding** field contains the project or subproject to which you would like to assign the service. Used for the volume of work carried out is, as already for the other activity types, the **Duration** field.

The most important difference from the other activity types is that, for appointments and service activities, the owner of the activity is not used as the executing project member but the **required participants** (appointment) or the **resources** (service activity). This enables in addition an appointment with multiple participants (for example) to be completed with a single entry for all participants in the system. As with all other activity types, select **Mark Complete** to enter the activity for the project.

Note: *If you, as the appointment scheduler, are attending the appointment and you wish to enter it accordingly, you must enter yourself additionally as a required attendee. If you want to make an entry in a service activity yourself, you must store your user as a resource.*



Tip: *If you are simply planning the activity to carry it out in the future (i.e. the information and values in the activity can still be changed), select* ***Save & Close*** *to close the activity. You can open the activity again at a later time to modify it and then mark it as complete to enter it for the project.*

Note*: CRM-Project does not support entries over day boundaries. If you want to enter appointments spanning several calendar days, you must create a single activity for each day. Appointments must always be entered within the same calendar day. Work within one day is calculated on the basis of conversion 8 hours = 1 man-day. This means that if you had a meeting of 10 hours work on one day, CRM-Project enters 1.25 man-days of work for the project.*

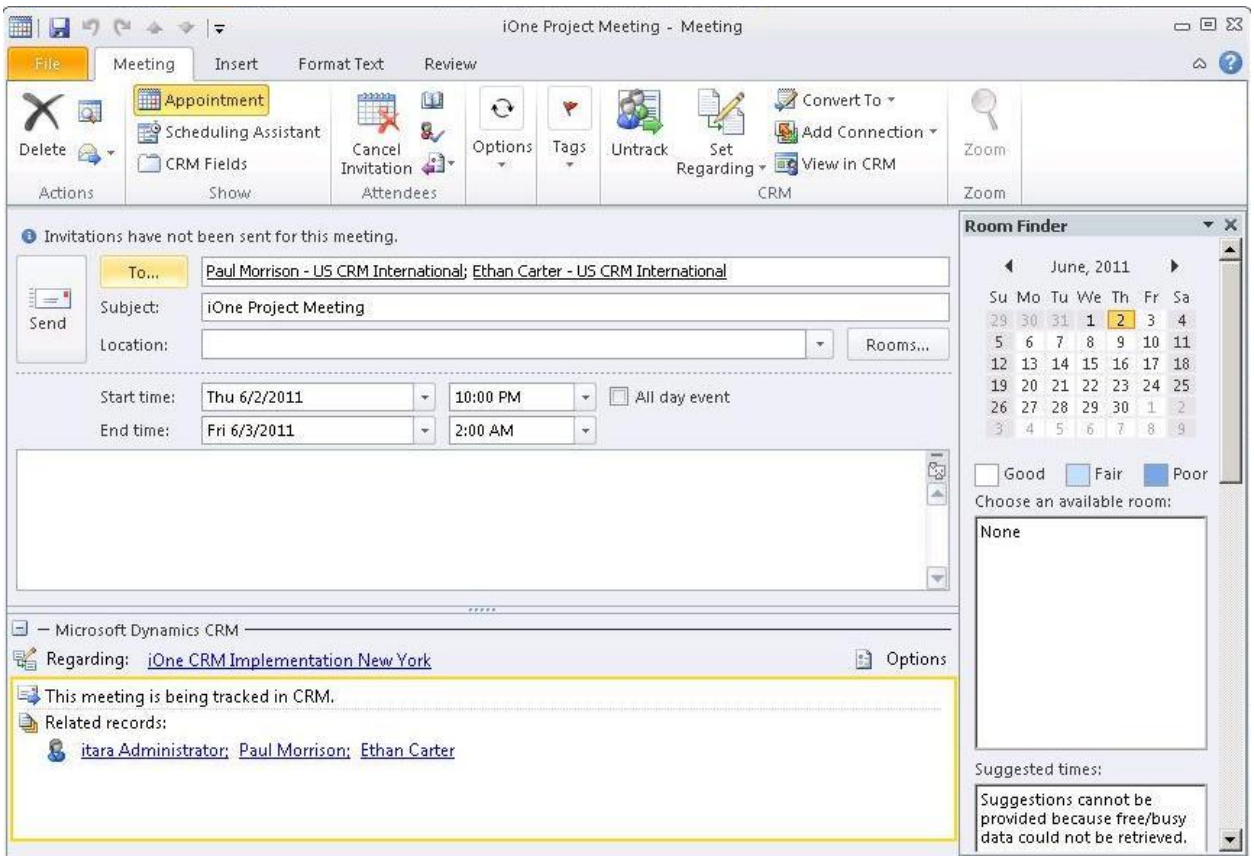
Note*: Depending on how your Microsoft CRM is customized, it may be required to specify the service run in service activities (mandatory field).*

You can of course also create an activity directly from a project node and enter it. Open the project node in which you carried out work and select **New: Activity** in the left-hand **Activities** link in the menu bar. This automatically assigns the project node to the regarding field.

CRM-Project is the 4th module for Microsoft CRM and of course also supports the Outlook client. You can therefore also create appointments within the Outlook calendar. Create the appointment in the Outlook calendar by entering all the necessary data and invite the relevant project members.

Note: *If you are also attending the appointment and CRM-Project is to include you in the entry, it is necessary for you to also invite yourself to the appointment to be entered as a participating user.*

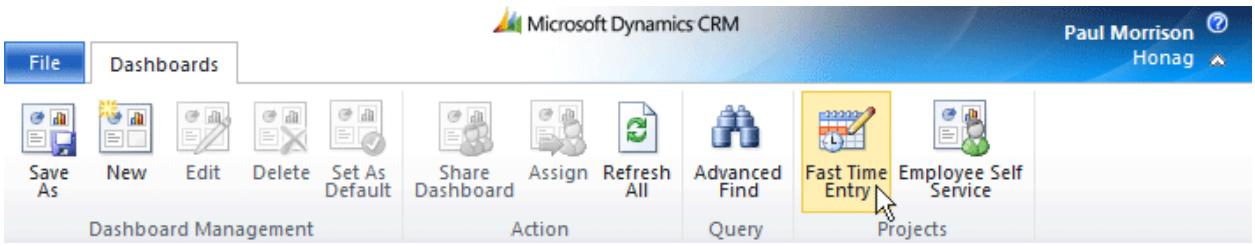
Tip: *Depending on the application, you can use a workflow to automate this invitation, or the storing of your own user as a required participant, for appointments.*



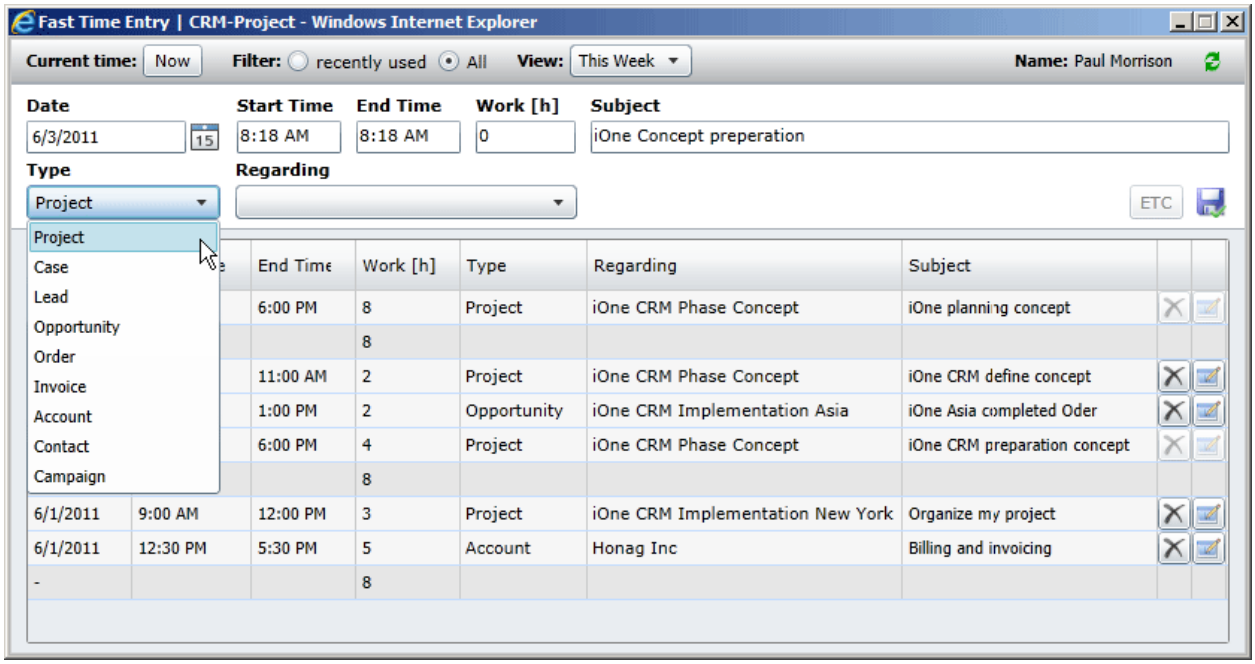
Use the CRM integration of the Microsoft CRM Outlook client to establish a reference to the required project node. This records the appointment in Microsoft CRM but does not yet enter it. To enter the appointment, mark it as completed in Microsoft CRM.

9.2 Time entry via the Fast Time Entry mask

The ***"Fast Time Entry"*** mask helps to make employee time entry even easier. The fast time entry mask is located on the ribbon bar, in almost every CRM screen. The time entry mask can be made available as a direct link, for those users who don't have a Microsoft CRM license (e.g. ***"ESS CAL"*** user).



The mask allows you to edit completed work in one screen; you can add start/end times, assign work to other entities (projects, cases, leads, orders, etc.) or add activity descriptions. Once you are finished, you can then add the next activity.



The top menu of the Fast Time Entry is used for creating new entries.

- ***"Current time"***: Sets all dates and time values to the current time.
- ***"Filter"***: Select whether or not recently used entities or all entities are listed in the project list.
- ***"View"***: Filter which displays entries for the selected time period: Yesterday, today, this week or last week.
- ***"Name"***: Displays the user currently logged on. This user will also be designated for creating any appointments.
- ***"Date"***: Date entered.
- ***"Start time"***: Start of the entry.
- ***"End time"***: End of the entry (changes automatically if the work duration changes).
- ***"Work [h]"***: The work time of the entry (is automatically filled with start and end time).
- ***"Subject"***: The description of the time entry.
- ***"Type"***: List of entities available for time entries.
- ***"Regarding"***: List of the records available for employee entries, for selected entity types.
- ***"ETC"***: Estimated Time of Completion: Here you can register any work that still needs to be completed. See section 9.8 for details.
- ***"Save"***: Saves the activity as complete.

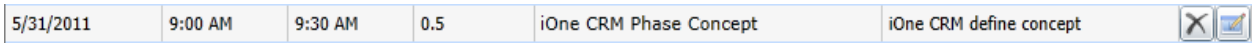
All time entry mask entries are (as a default) stored as appointments in Microsoft CRM and therefore, are also available in the Outlook calendar.

However, the Fast Time Entry *records* are synchronized systematically. This allows you to configure Outlook filters specific for Fast Time Entry records, thus preventing the time recording entries appearing in Outlook.

***Tip**: The number of **"recently used"** items is configured based on the settings of the solution (see section 15.1.3).*

Entries are grouped per day. The work volume total is displayed every day, to help you control which employee entries have been completed and which not.

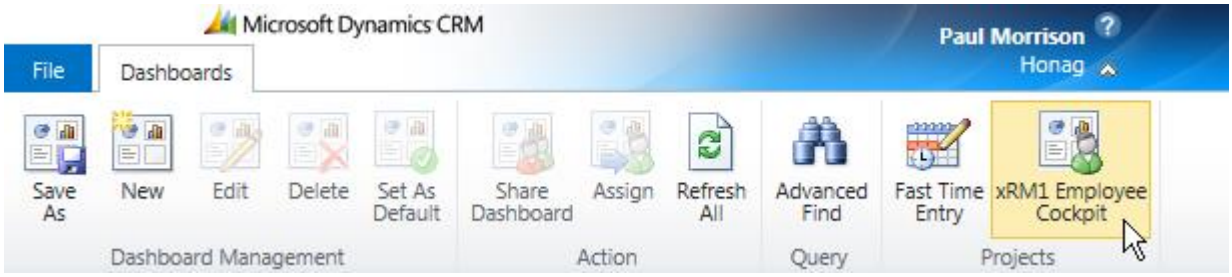
Listed activities can be subtracted or edited by the user.



However, changes will no longer be possible for completed entries. The period for changes can be changed in the "Settings". Please refer to section 15.1.3.

9.3 Entering Time with the Employee Cockpit

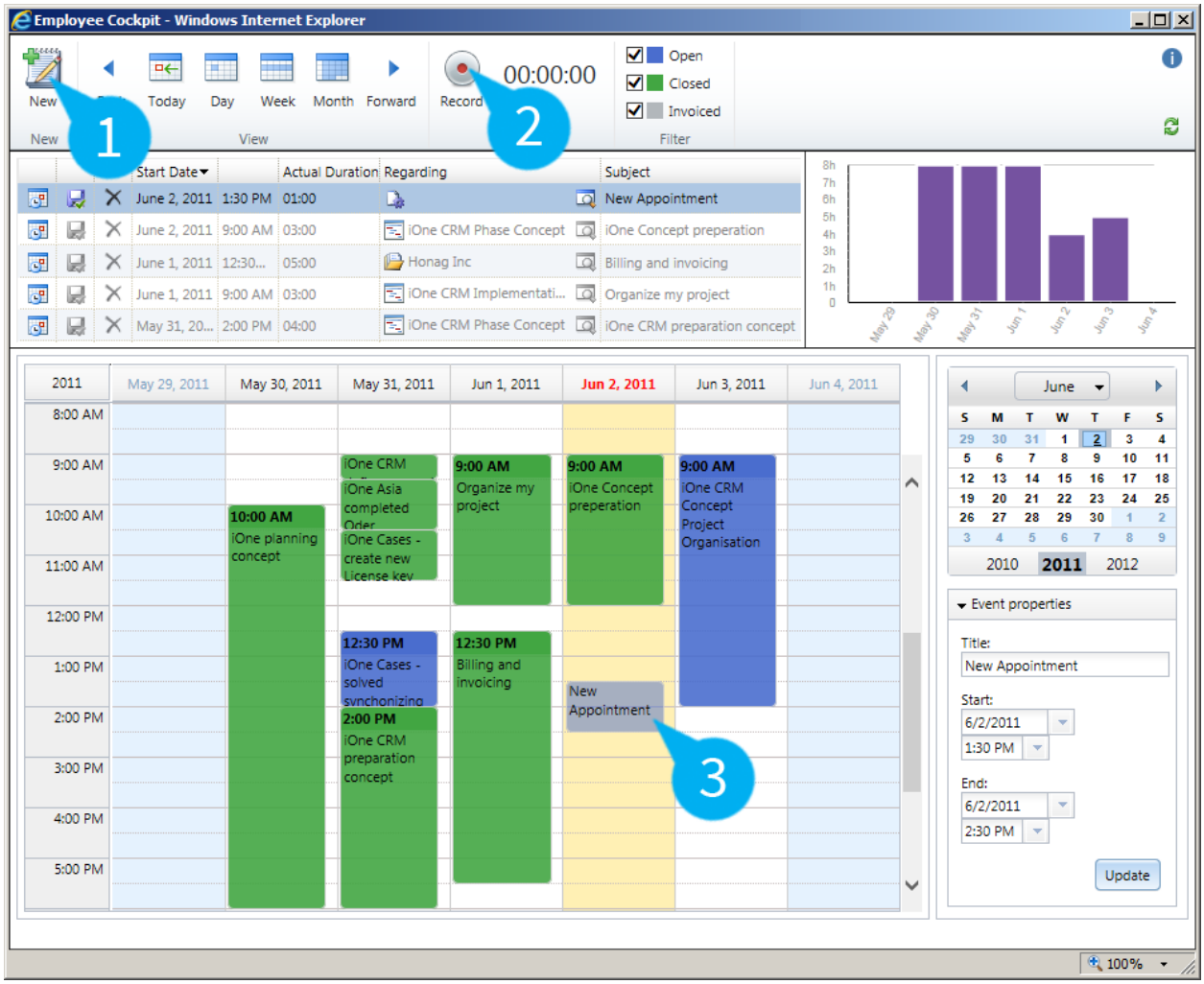
With the user friendly and flexible Employee Cockpit mask, you can enter and edit your work hours quickly and easily. It can be accessed in almost all areas of Microsoft CRM, from the topmost menu bar. The Employee Cockpit mask can also be used from outside CRM (integrated into your intranet page, Outlook start page, SharePoint site etc.)



After starting the mask, you can create and edit the time entries in three different ways:

1. Using the "New" button at the top
2. With a stopwatch
3. In the calendar view

The entered items will be immediately synchronized with the CRM system and can be used for project reporting and controlling.



9.3.1 Time Entry with "New" button

To create a new entry, click on the ***"New"*** button, located on the left hand side of the menu (1). A new time entry line will be created in the grid; the item also appears in the calendar view (2). Now, you are able to edit the start/end time and/or duration, create a new title, and (if necessary) add a short description. You can use the look-up button to select the ***"Regarding"*** item. After selecting the button, you can search for the appropriate 'regarding record' via the CRM look-up mask.

To complete your time entry, click on the diskette icon in the second column of the grid. The time is now recorded and the line will be greyed out.

To view an item in CRM, use the calendar icon in the first column.

To delete a record, click on the "Delete" icon in the third column.

9.3.2 Time Entry with the stopwatch

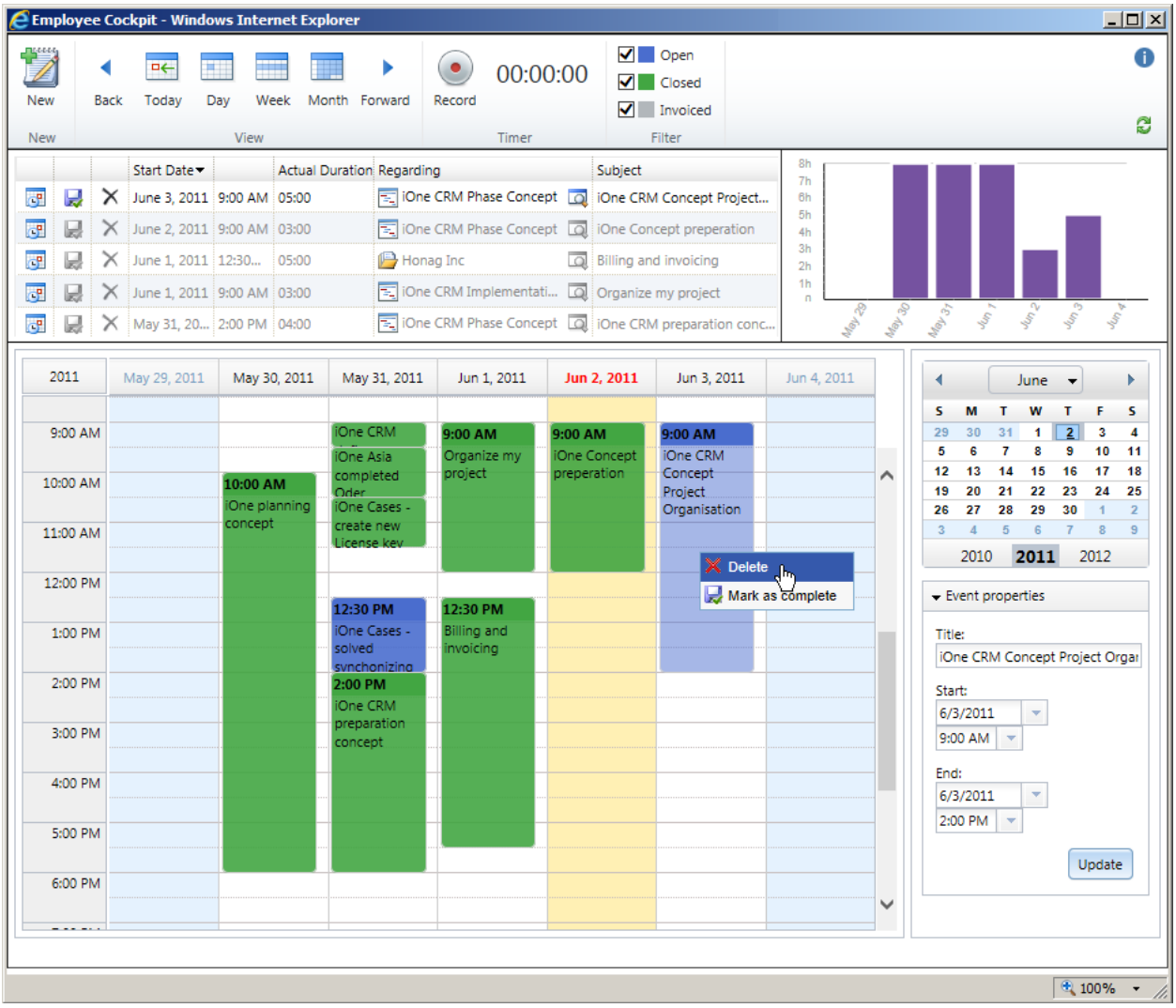
To track your current tasks, use the stopwatch or "Timer" in the upper menu (2).

To create a new entry, click on "Record": the new item, and appropriate blue colored item, will be created in the grid. As with other time entries, you need to fill out the information related to the record. You can enter the information now or after you've stopped the timer. For recording, editing, or deleting the entry, use the options previously described.

9.3.3 Time Entry with the calendar view

To create a new entry in the calendar view (3), click once directly in the calendar: the new blue colored item will be created. Now you can edit the start/end time and/or duration by dragging and dropping the upper and lower boundaries of the item or moving them. Create a new title using the ***"Event properties"*** mask, on the right. To select the 'regarding' item, or for entering more details, you can use the grid view or open the record in the CRM by double clicking on the item in the calendar.

To complete your time entry, right-click on the created item and choose the ***"Mark as completed"*** option. The time is now recorded and the item color will change from blue to green. Choose the ***"Delete"*** option to delete the entry.



9.3.4 Graphical hours overview

A container displaying the hourly overview is available: a column chart shows the total number of hours entered for each day.

9.3.5 Navigation, views and filters

In the top bar, you will also find navigation and filtering functionalities. You can set and navigate between today, daily, weekly and monthly views, forwards and back. The filter for "open", "closed", and "invoiced" entries provides you with a more transparent and flexible view for creating and viewing your entries.

You can also use the calendar, on the right hand side, to navigate to a particular day.

9.3.6 Employee Cockpit modification

The Employee Cockpit mask can be adjusted according to your individual needs:

- Elements and views can be rearranged or removed individually
- New elements (iFrames) can be added
- Columns in the table grid can be added, removed or rearranged

No programming knowledge for the adjustments is necessary. If you like to learn more on how to modify the Employee Cockpit, please go to 16.5.

Be aware that the appropriate security role is required (***"System Administrator"*** or ***"System Customizer"***).

9.4 Entering rendered services

A Larger AMOUNT of man-days of services within the project can be entered with activity type Rendered services. Both the services of users within the organization, services of external project participants or business units can be entered here.

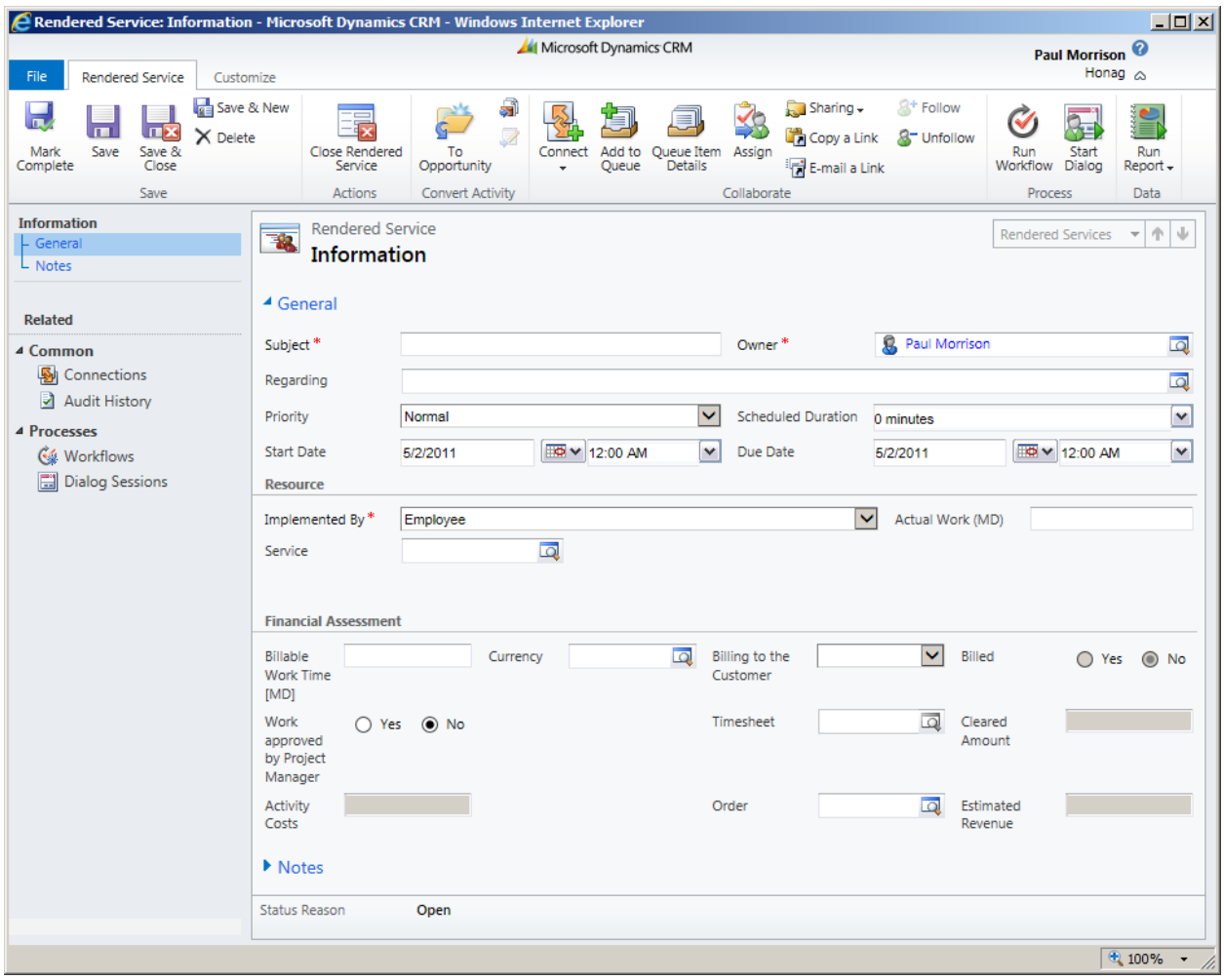
As with all activity types described above, it is also important for rendered services that field **Regarding** contains the project node to which the service is to be assigned. To enter the activity in the project, select **Mark Complete;** to save the activity and, at the same time, enter it for the project.

Tip: *If you are simply planning the activity to carry it out or complete in the future (i.e. the information and values in the activity can still be changed), select* ***Save and Close*** *to close the activity. You can open the activity again at a later time to modify it and then* ***Mark Complete*** *to enter it for the project.*

9.4.1 Entering the services of employees (CRM users)

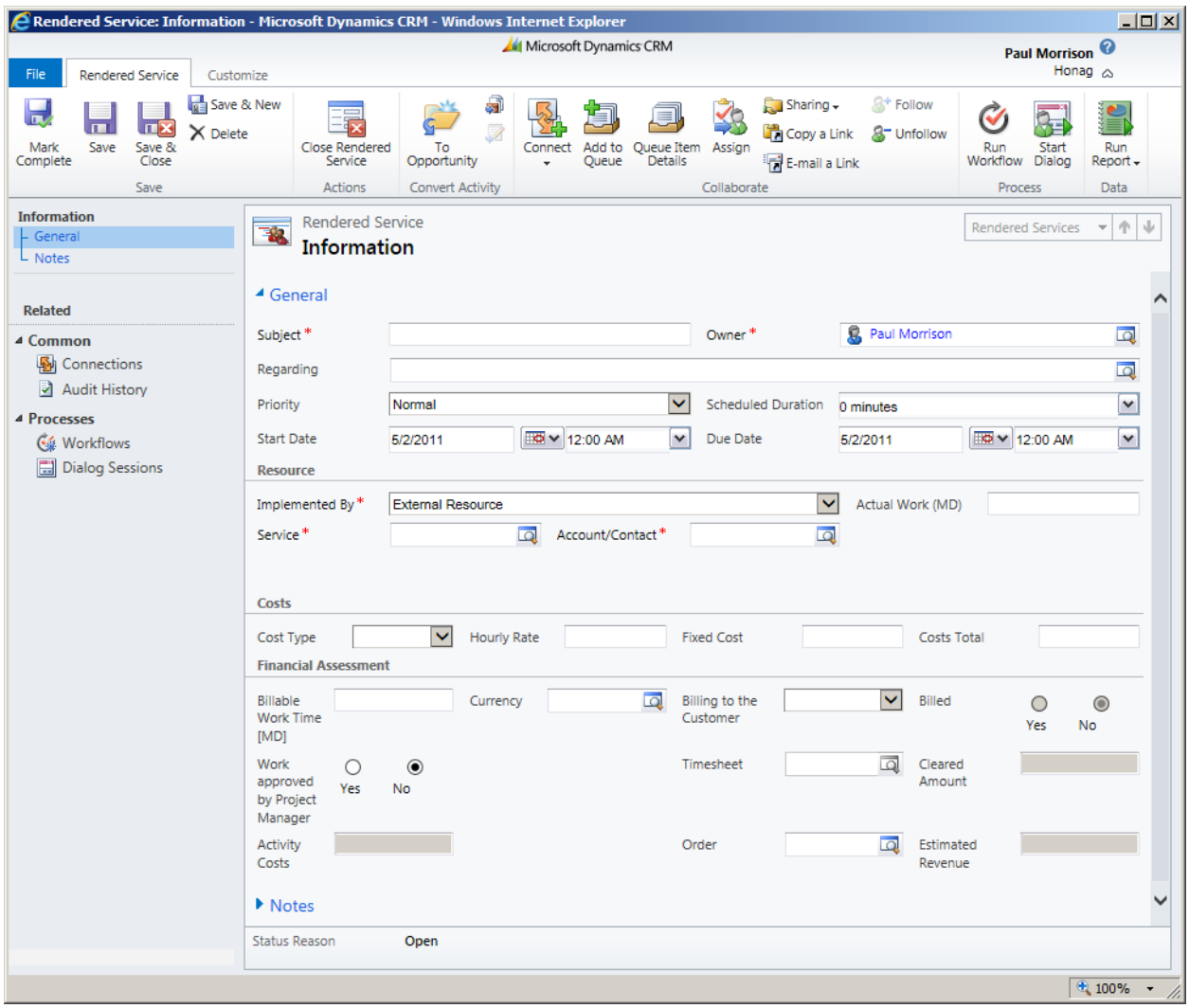
Services of users within the organization can be entered by the users themselves or by a substitute or the Project Manager (depending on the authorization model used).

Selecting "Implemented by Employee" in the Resource section means services are entered for the organization users set. The Start and End dates are relevant to the positioning of the entry within the chronological sequence of the project. However, value **Actual MD** is the determining factor for the service volume. One man-day (MD) corresponds to the 8 hour default; this can be adjusted flexibly via settings. Alternatively, a different service can be configured for the user. If nothing is set here, the user's standard service or output assignment defined for the project order will be considered (see section 12.1.5).

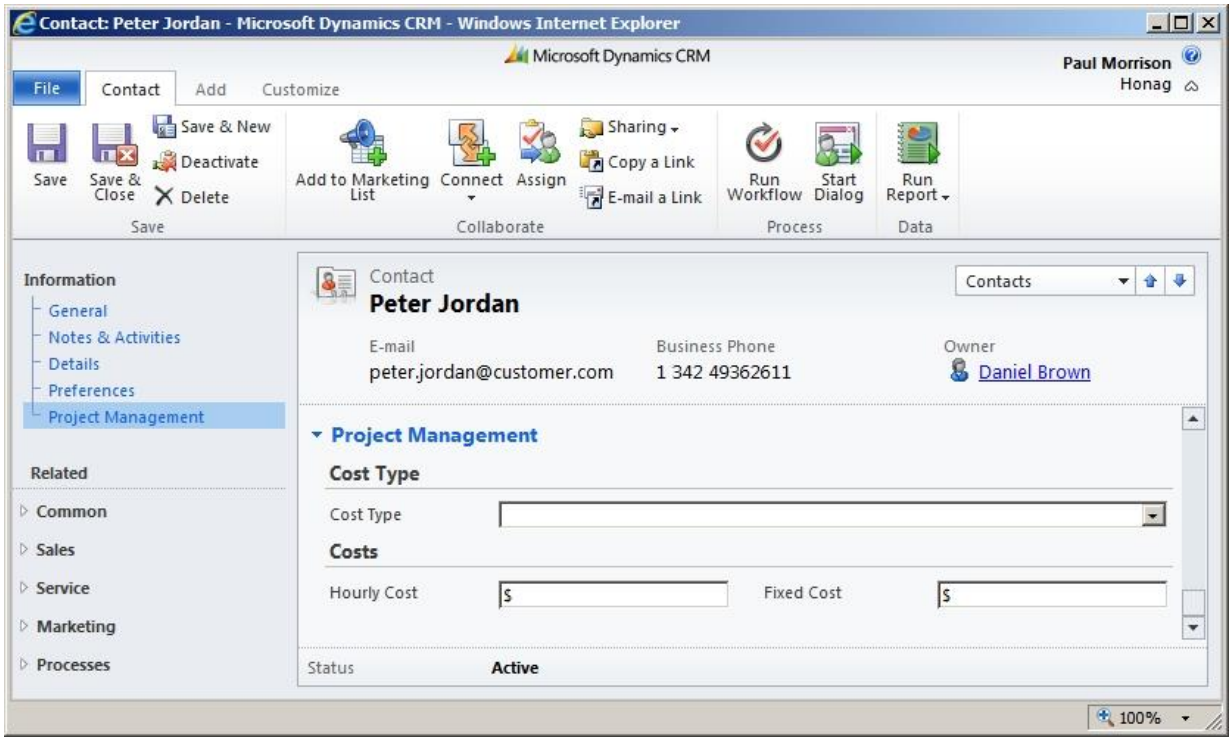


9.4.2 Entering the services of external resources (non-CRM users)

Selecting "Implemented by External Resource" in the Resource section means services are entered for a contact or service provider external to the organization. The Start and End dates are relevant to the positioning of the entry within the chronological sequence of the project. The value **Actual MD** is the determining factor for the service volume however. For entering the service of an external resource, storing of the service rendered is mandatory because otherwise there can be no billing of services.



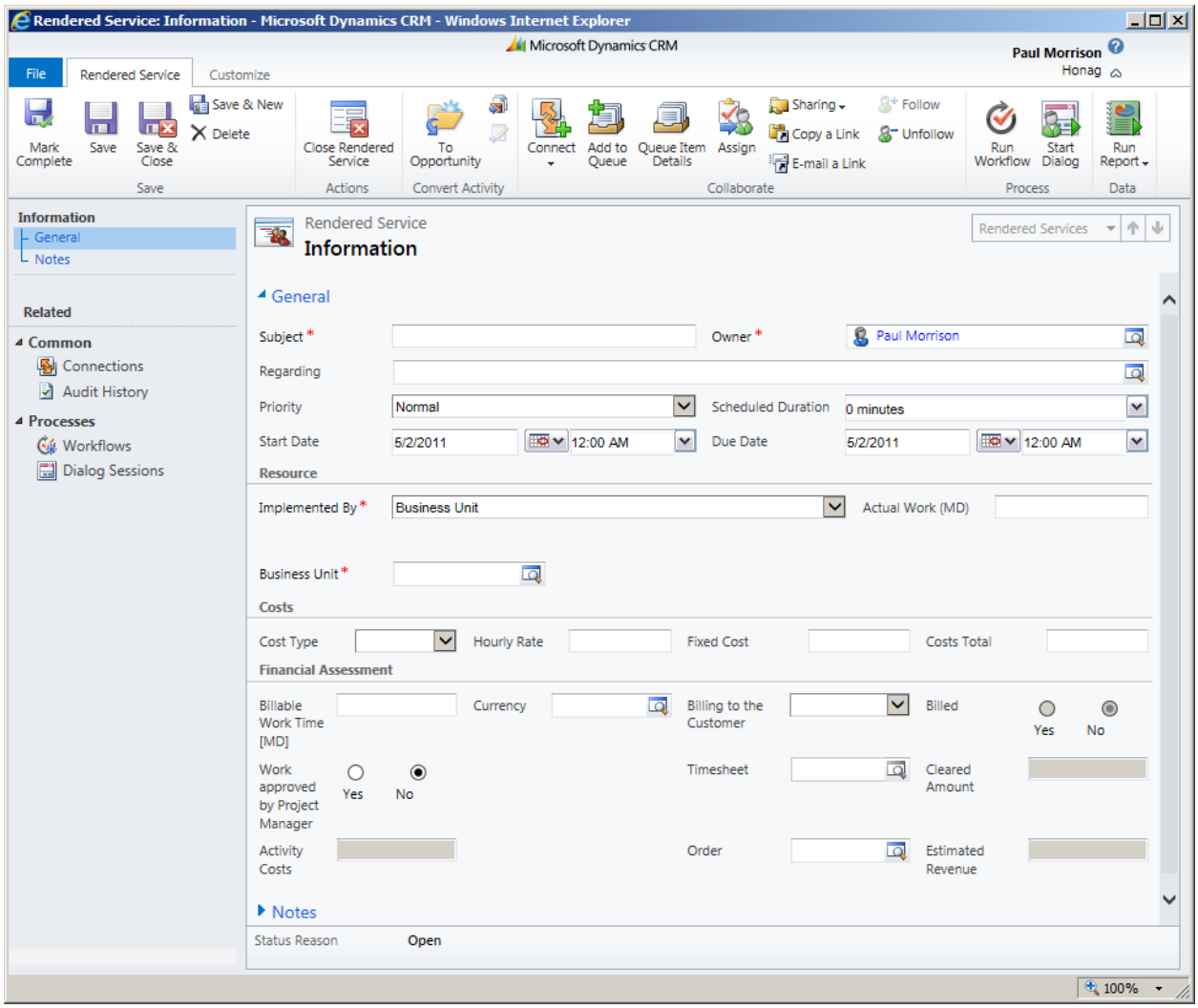
The costs for entering the service are taken directly from the contact - provided they are stored there and are calculated in line with the cost type selected. In this case, one man-day (MD) also corresponds to the 8 hour default, so long as it's not been configured differently under settings.



9.4.3 Entering the services of Business Units

Selecting "Implemented By Business Unit" in the resource section means services are entered for a Business Unit of the organization. The start and end dates are relevant to the entry position within the chronological sequence of the project. The **Actual MD** value determines the amount of work.

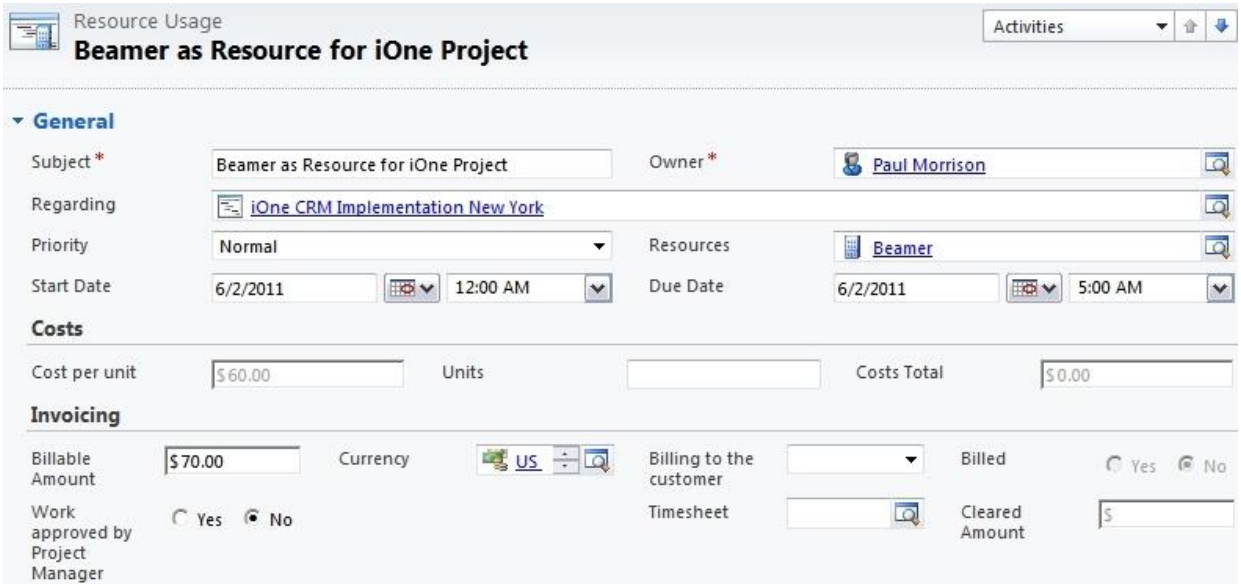
In this case, one man-day (MD) corresponds to 8 hours by default, unless it's been configured differently under settings.



9.5 Using resources

The activity type **Resource usage** is available to document the use of resources and the effect on costs and revenue. The resources from the **Facility/Equipment** area are accessed here.

The difference between resource usage and material usage is that resources continue to be available to other projects after usage. Materials are used up after usage however.



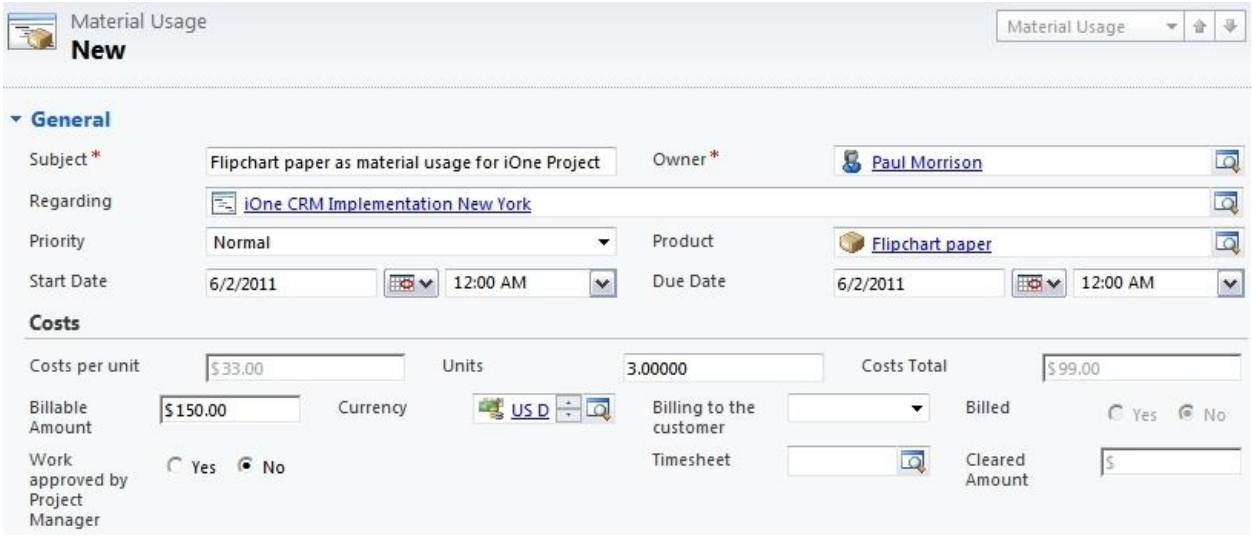
The Start and End dates are relevant for the positioning of the usage within the chronological sequence of the project. The resource costs are taken automatically from the relevant equipment if they are stored there. Also, the number of units used and the frequency of usage within the time period selected must be specified.

The amount billed to the customer can be assigned by the relevant user or the Project Manager.

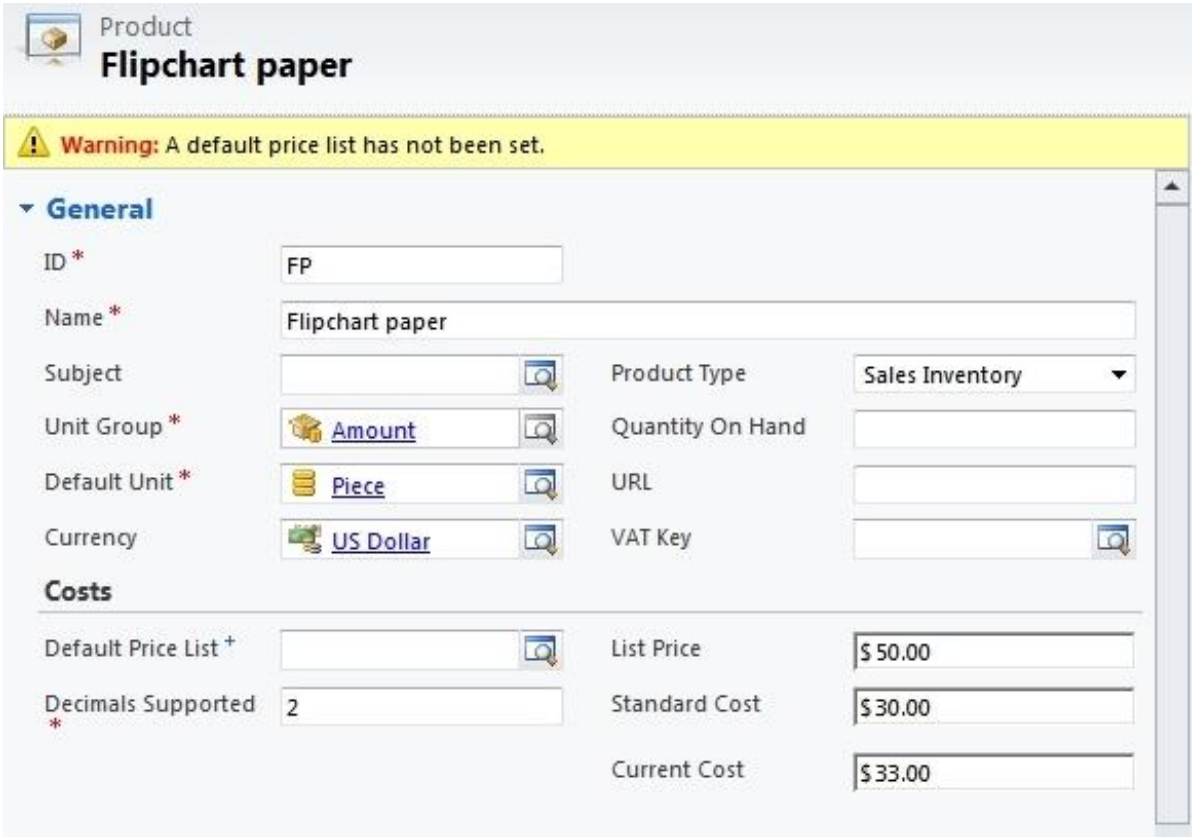
As with all activity types described above, it is also important for resource usage that field **Regarding** contains the project node to which the service is to be assigned. Select **Mark Complete** to enter the resource for the project.

9.6 Using materials

Activity type **Material usage** is available to document the use of materials and the effect on material costs and revenue. Materials from the product list are accessed here.



The Start and End dates are relevant for the positioning of the usage within the chronological sequence of the project. Material costs are taken automatically from the relevant product if they are in the **Current Cost** field. Also, the number of units used and the frequency of usage within the time period selected must be specified.



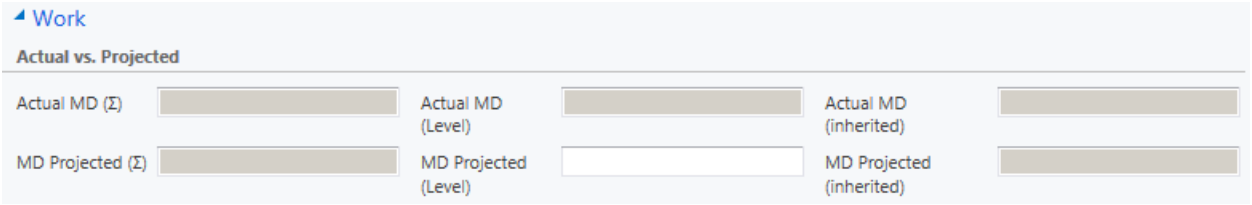
The amount billed to the customer can be assigned by the relevant user or the Project Manager. The list price stored for the product can be used here as an indication. Alternatively, the material can be added to the order to have the individual customer price calculated by Microsoft CRM.

As with all other activity types described above, it is also important for material usage that field **Regarding** contains the project node to which the service is to be assigned. Select **Mark Complete** to enter the resource for the project.

9.7 Effect of time entry on the project

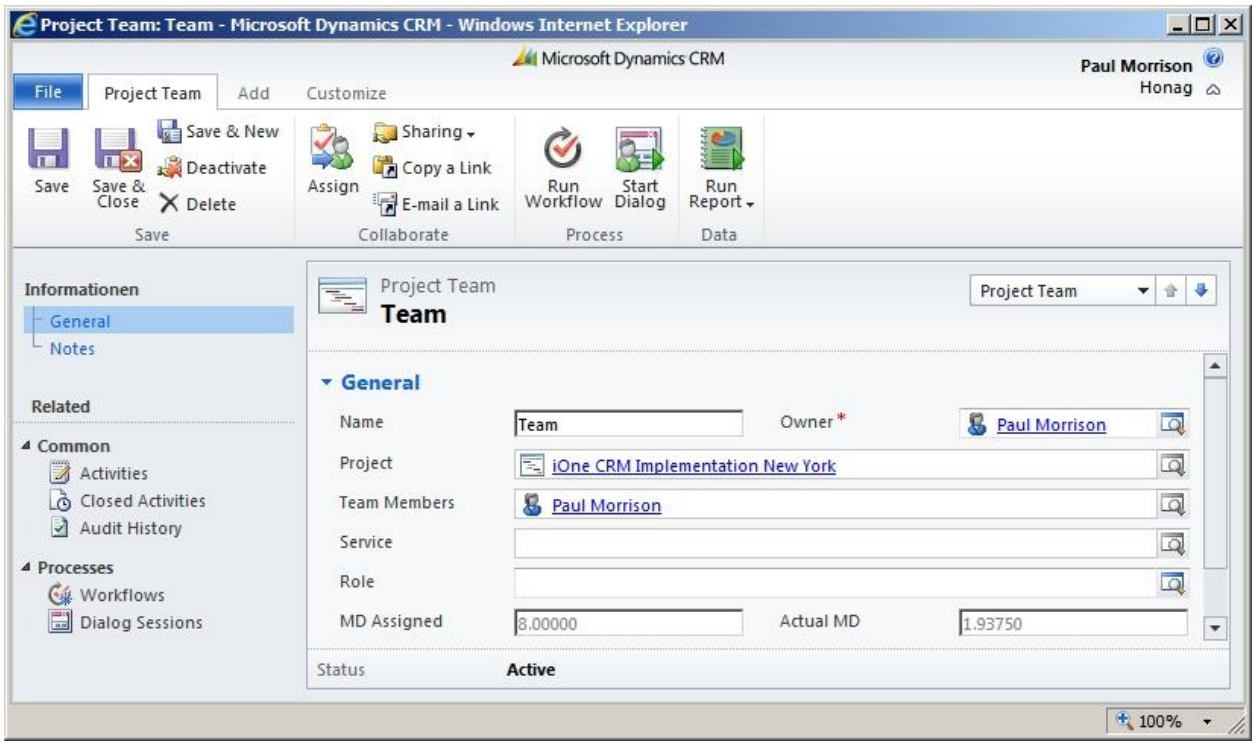
By entering times, i.e. successfully completing activities with a reference to a project or subproject, automatic actions are executed by CRM-Project.

Firstly, in a subproject to which the activity is related, the values for Actual MD (Level) and Actual MD (Σ) are increased by the value of the work time of the activity. At the same time, CRM-Project checks whether there are more parent project parts above the subproject for which the entry was just made. If so, values Actual MD (Inherited) and Actual MD (Σ) are updated in all parent project parts. This update process is recursive until the update has reached the main project that has no subprojects above it.



In addition to the work, CRM-Project also updates the costs accrued within the project for the entry just performed. For this, it is necessary that the respective hourly rates are kept in the user settings for all employees. Please refer to section 15 for more detailed information on storing hourly rates. To calculate the personnel costs, CRM-Project first uses the hourly rates of all employees occurring in the entry. These hourly rates are multiplied by the work time entered and added to the relevant subproject as a cost amount. This means the entries for one or many participants of an entry are included in the same way as the entry of different hourly rates for different employee groups. As is already the case for man-days, the cost update is performed for all parent project parts (Personnel Costs (Inherited), Personnel Costs (Level) and Personnel Costs (Σ) fields).

Furthermore, the associated project team entry for the project node, value **Actual MD**, is updated for every user entered. This adapts the utilization of the employee to the actual situation in real-time.



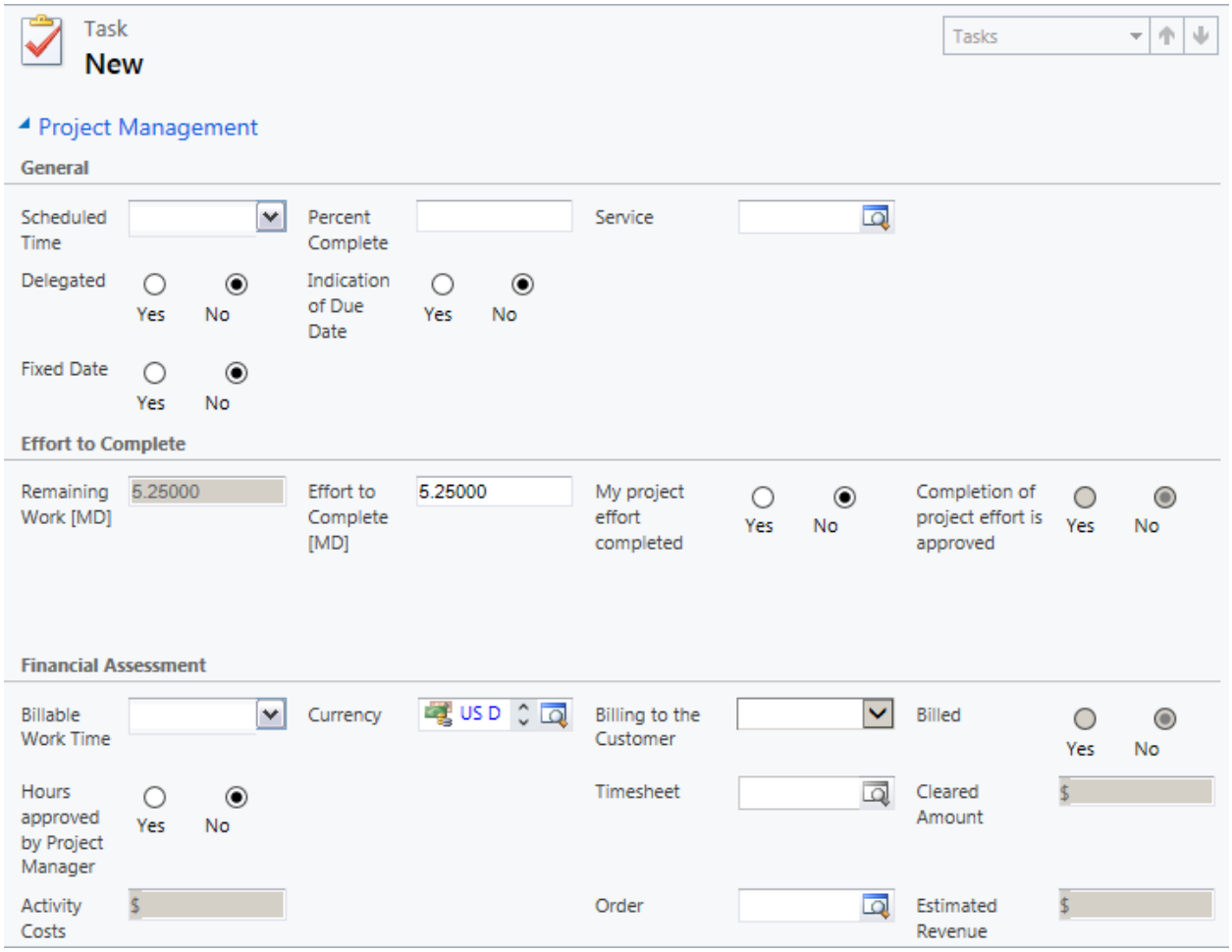
9.8 Estimated time to completion

Optionally, project members are able to estimate remaining expenses in a related project node, by selecting 'Estimate Time to Complete' (ETC) during the entry process.

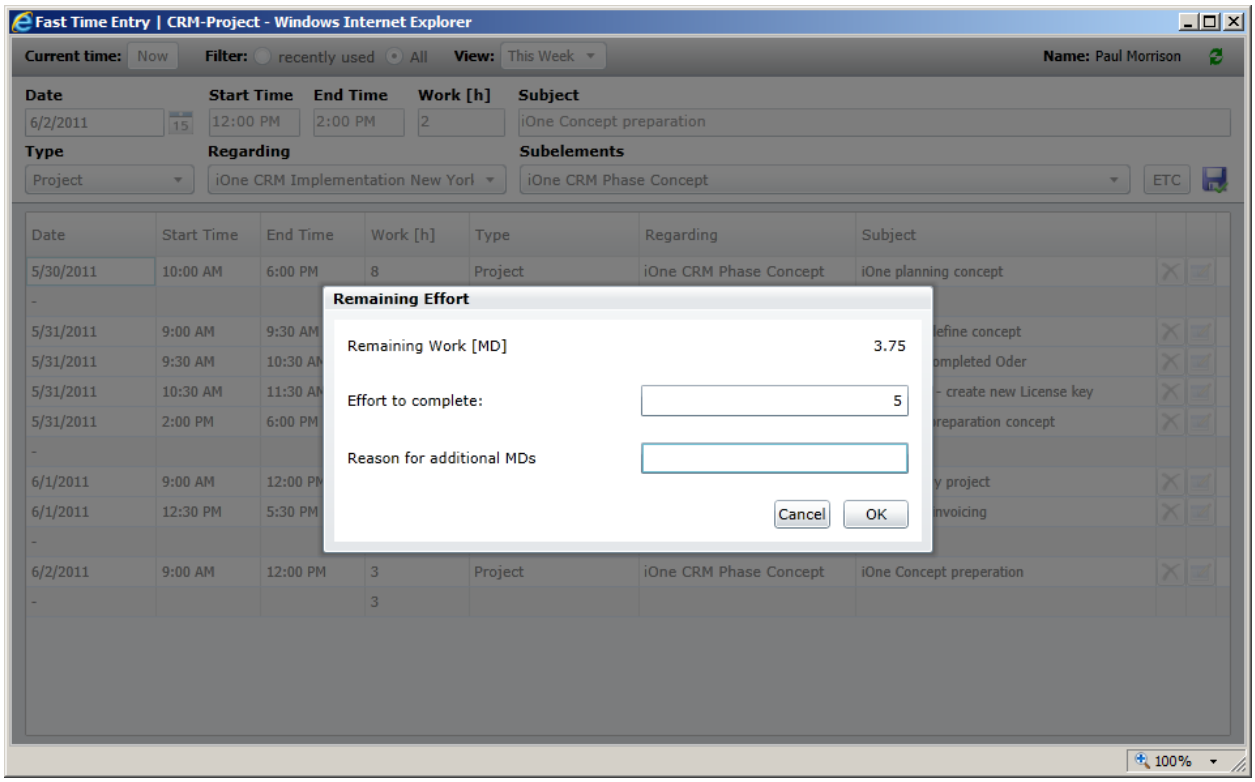
This can be done in all types of activities related to a specific time. The employee can decide whether or not the remaining time available for completing the project node is sufficient (value field 'Remaining Work (MD)'). Different values can be entered in the 'Effort to Complete (MD)' field; however, the employee should give reason for any variation.

The project employee can also state, through the last entry, that work in a related project node is completed for him or herself. All of the respective outstanding tasks must be complete, for this employee, before his or her "Team Member" assignment is closed.

Team entries and assigned work in the planning table can be adjusted in the "Remaining Work" changes. Deviations in the Planning Table appear in the form of a yellow 'warning' symbol; therefore project managers receive up-to-date information concerning deviations from the original plan.

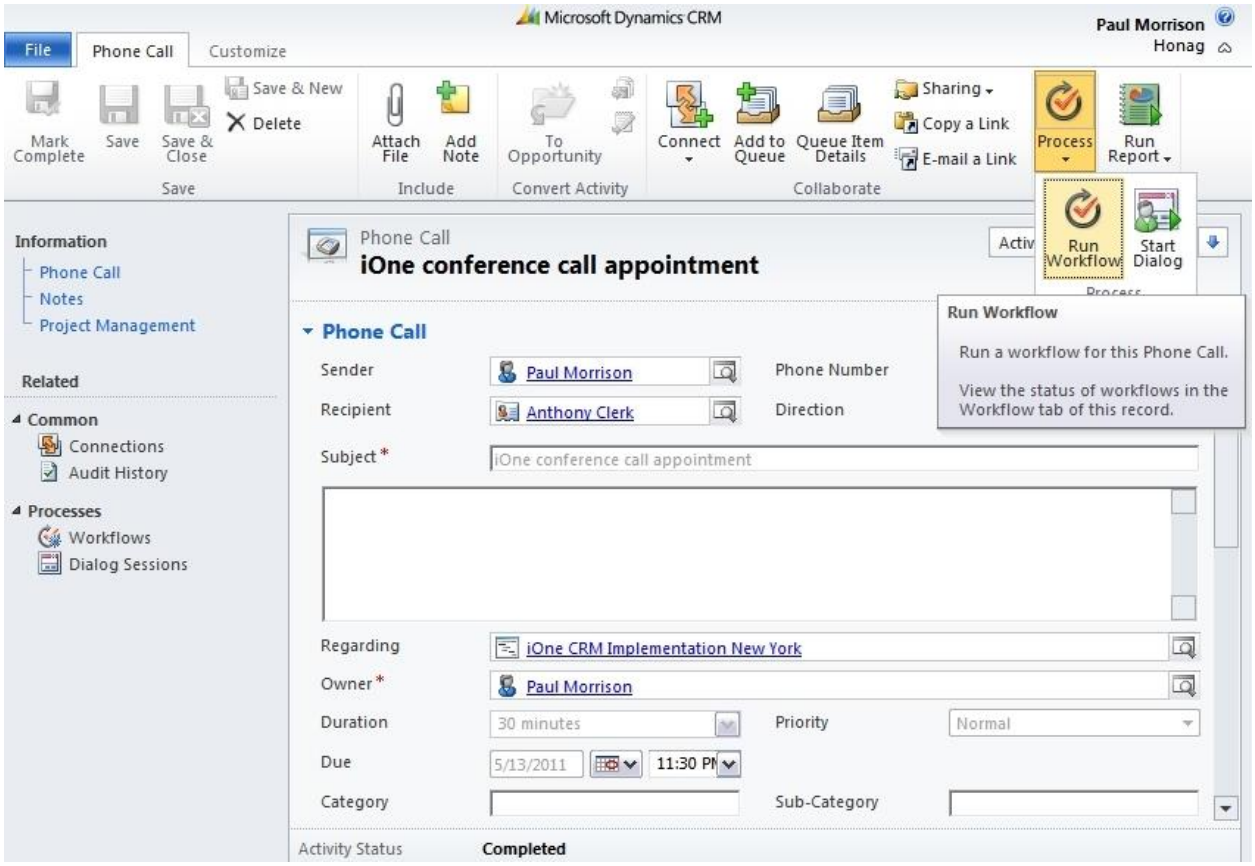


Registering remaining effort is, of course, also possible in the fast entry screen (see button "ETC" in section 9.2).

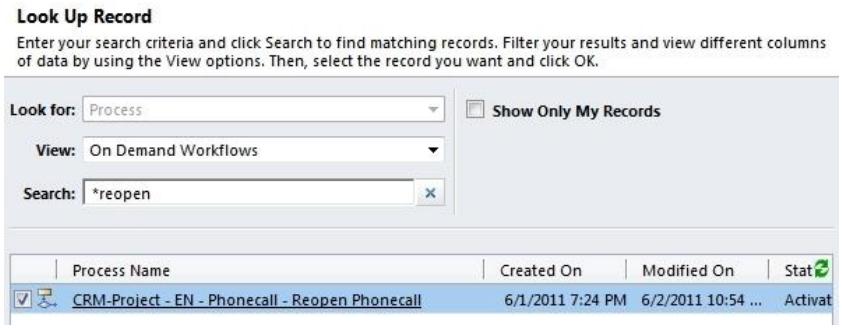


9.9 Changes in activities entered

To change activities already entered, CRM-Project provides for every activity type a workflow to re-open activities entered:



- Open the activity already closed
- In the menu, click the **Process** button and then **Run Workflow**
- Select workflow " **Re-open ...**".


Look Up Record
Enter your search criteria and click Search to find matching records. Filter your results and view different columns of data by using the View options. Then, select the record you want and click OK.
Look for:
Process
Show Only My Records
View:
On Demand Workflows
Search:
*reopen
Process Name
Created On
Modified On
Stat
CRM-Project - EN - Phonecall - Reopen Phonecall
6/1/2011 7:24 PM
6/2/2011 10:54 ...
Activat

- **Close** the activity and wait a few seconds until the workflow has finished.
- **Re-open** the activity. The activity can now be changed again.
- Change the data in the activity. If an activity has been entered e.g. for the wrong subproject, you can rectify this now by changing **Regarding** to the correct subproject. Or, if a participant is missing in the activity, you can add this person.
- Close the activity with **Mark as Complete**.

***Note**: Re-opening an activity undoes the entry within the project, i.e. the entry process for costs and times in the project is reversed. Re-completing the activity re-runs the entry with all modified parameters.*

10 Travel management

The travel management package integrated into Microsoft CRM enables full scheduling, implementation and billing of business trips - with or without project reference.

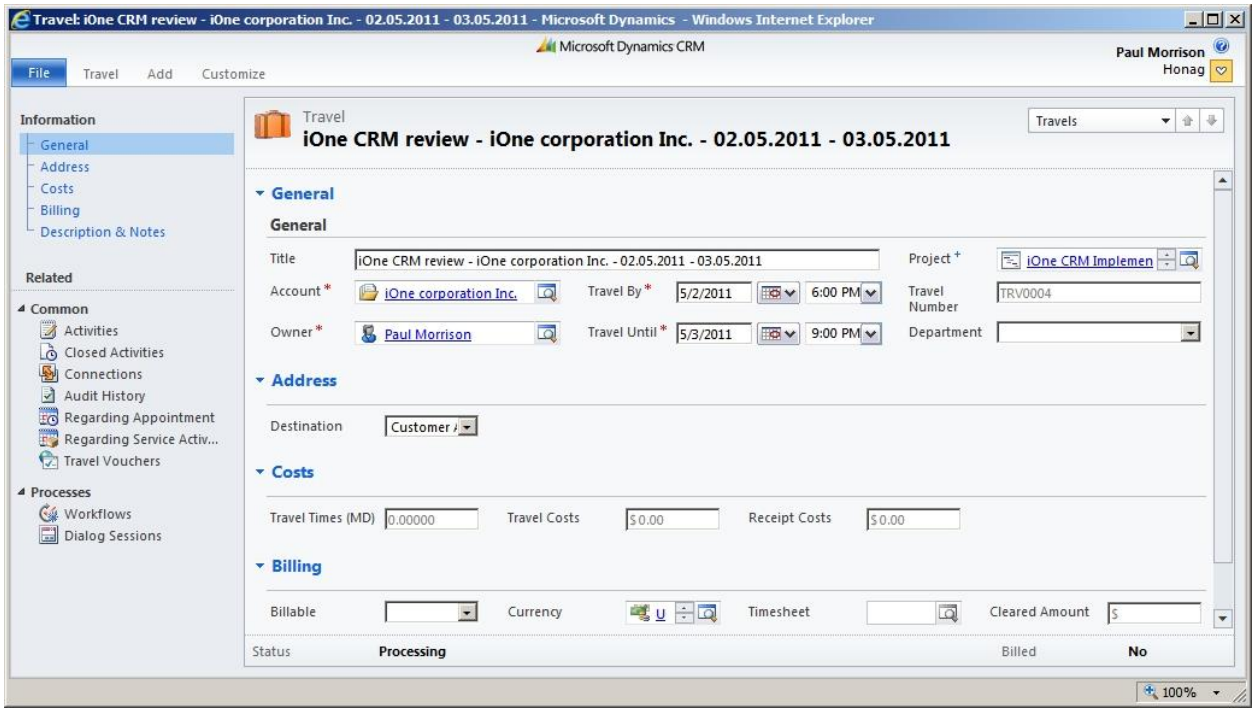
With the travel management package integrated into CRM-Project, the Project Manager has access to all the travel and receipts of employees within the project. With billing modalities (agreed and set by the customer) stored in the order, the system automatically creates a billing proposal for the billing of travel and the associated costs.

The Receipt Management system enables employees to enter receipts and expenses themselves. The receipt number generator provides automatic assistance in the organized entering of receipts for every trip. The integrated expenses calculator helps employees to calculate expenses for absences - even for trips abroad with different daily expense rates.

The receipts entered can be accessed directly by the HR department as reports, and serve as a template for settlement of an employee's travel expenses. Expense reports and reimbursement by the HR department are simplified further for employees with classification by payment type.

***Tip**: Those traveling plan their trip in the absence time period and book any resources required (e.g. company cars). Workflows can be used to specify that equipment is reserved immediately and for automatically entering an absence entry in the Outlook calendar for the employees for the duration of the trip.*

10.1 Creating travels



New travel can be created within the Microsoft CRM menu or within a project node. When creating a travel within a project node, the ***"Project"*** field is automatically prefilled by the system.

- The ***"Title"*** is automatically filled in and contains the project name, destination and travel period.
- ***"Owner"*** is the employee taking the business trip. This is filled in with the current user.
- The ***"Account"*** field specifies which customer will be visited on the trip and is automatically filled in with the account from the respective project.
- ***"Department"*** is available if more detail is needed.
- The ***"Travel Number"*** is used as a unique identifier for the trip and associated receipts.
- ***"Project"*** shows the relevant project.
- ***"Travel From"*** and ***"Travel Until"*** is used to specify the time period of the entire trip.
- ***"Primary customer address"*** or ***"Different address"*** specifies whether the destination is the customer address or a different address (such as a construction site or a regional office). When a different address is needed, additional fields are displayed to specify ***"Street"***, ***"ZIP code"***, ***"Town/City"*** and ***"Additional address"***.

The fields in the ***"Costs"*** area are automatically filled in by the system, as soon as receipts or times are entered for the trip.

The tab on the left-hand side of the travel screen (as in the project) allows the user to create activities as well as view all completed activities. The activities stored here, are seen as 'travel times', as they are assigned to a trip. Therefore, the specific arrival and departure of an appointment should be assigned to the trip and not to the project.

Conversely, specific service appointments related to a project should not be associated with the trip but with the relevant project (e.g. ***"Appointment"*** or ***"Service Activity"***). When creating these activities, use the ***"Associated Travel"*** field (under the Travel Management tab) to specify the travel associated with the appointment. The ***"Regarding Appointment"*** and ***"Regarding Service Activity"*** menu options allow you to view travel appointments and service activities. Solution settings can be used to plan travel activities (arrival, departure, preparations, and bookings, etc.) as well as times and costs. You can decide if travel times and expenses are tallied just for the trip, or are passed on to the project.

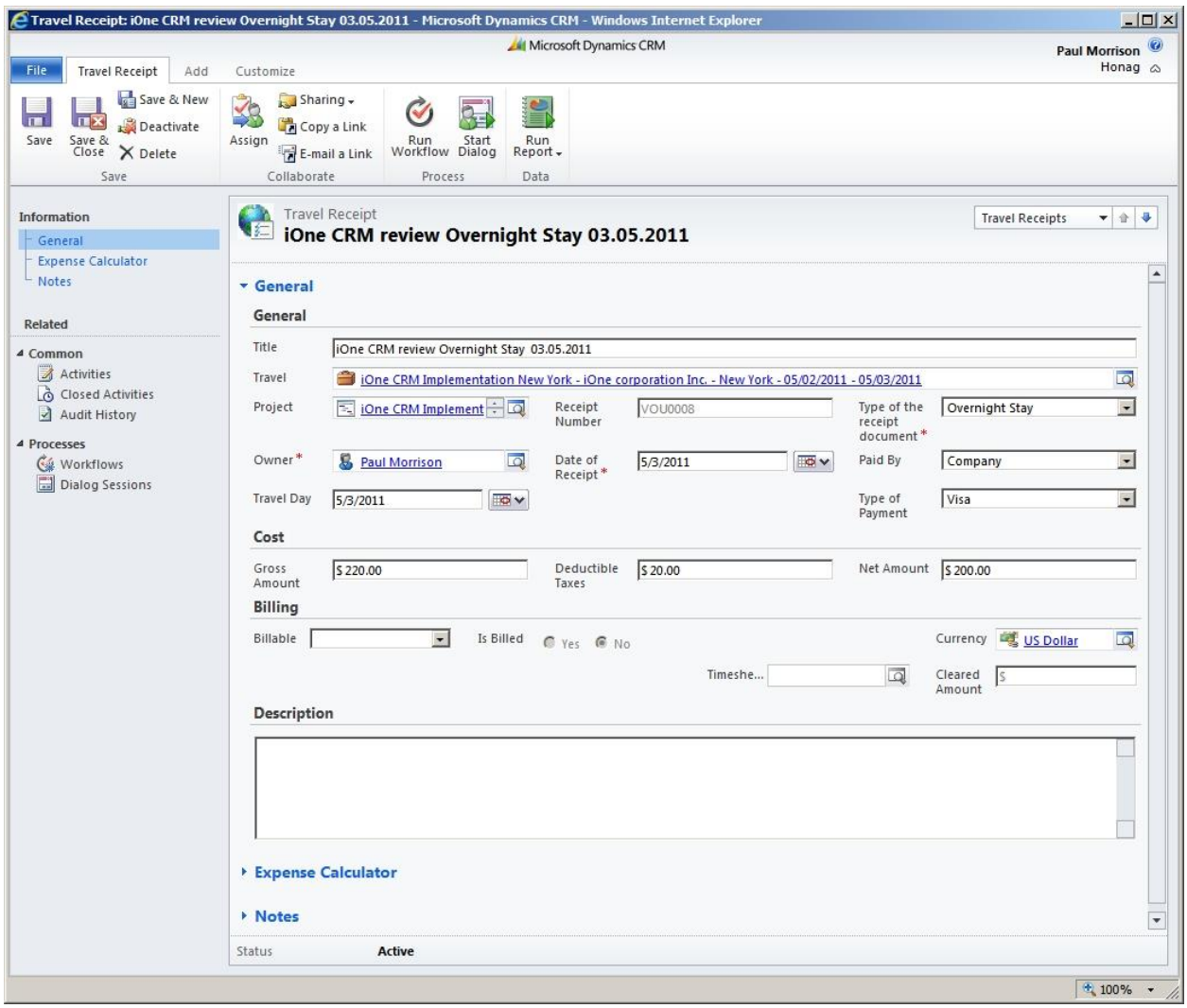
Receipts are totaled in the trip in the ***"Costs"*** field, as soon as the receipt is closed. These costs are always passed on to the costs of the project.

10.2 Receipts

In the standard, receipts are always associated with travel. However, you can also create receipts without travel. There are various receipt types within the **Type of receipt document** field to choose from:

- Entertainment expenses
- Office supplies
- Bus/train
- Company car
- Flight
- Gifts
- Fuel
- Rental car
- Parking fees
- Private
- Other receipt document types
- Private vehicle
- Other car expenses
- Expenses
- Taxi
- Telephone
- Overnight stay

Various fields for entering receipt information are displayed at different times depending on the receipt type. Relevant net costs are used for travel/project costs. For the ***"Company Car"*** receipt type, standard system costs are taken from the resource (e.g. Car) once the travel distance has been entered.



To create a new receipt, simply follow the steps below:

- A receipt for a particular trip is assigned with the ***"Travel"*** field. When creating a travel receipt, the value is automatically taken from the trip. This also applies to the ***"Project"*** field.
- ***"Type of receipt document"*** provides you with a variety of field options. For example, selecting ***"Company Car"*** hides the ***"Costs"*** field from view; fields for selecting a vehicle and specifying the miles driven are displayed. Selecting ***"Expenses"*** reveals a tab which is linked to an (internet) expenses calculator.
- ***"Receipt number"*** is filled in automatically.
- Select ***"Type of payment"*** (not available for every receipt).
- Select ***"Method of payment"*** (not available for every receipt).
- Select ***"Travel day"***.
- Select ***"Receipt day"***.
- Select ***"Gross Amount"***.
- Select ***"Deductible taxes"***.
- ***"Net Amount"*** is calculated automatically.
- Select ***"Vehicle"*** if receipt type ***"Company Car"*** is selected.
- For receipt type ***"Company Car"***: The mileage is calculated automatically from the travel beginning and end. The value calculated can be overwritten.
- The ***"Description"*** field allows you to add additional information, for any further clarification.
- The ***"Expenses calculator"*** tab is only available when ***"Expenses"*** is selected as the receipt type.

Receipts are bound to the travel once deactivated.

***Note**: For most receipts, the Net Amount field is used as the starting field for calculating cost. However, the company car is an exception. Costs for the company car are taken from **"Costs per unit"** in the facility/equipment selected and multiplied by the value in the **"Distance traveled"** field.*

***Tip**: Alternatively, receipts can also be entered centrally (e.g. by the back office). To do this, display the receipts at the required places within the pane. This enables those responsible to enter all receipts, and to directly assign those employees in question, such as for further classification or assignment to travel or a project.*

10.3 Travel settings

Various settings need to be configured to settle travel expenses. Please refer to Section 15.1, for more information.

10.4 Settlement of travel expenses vis-a-vis the customer

The settlement of travel expenses is described in Section 12.1.6.

10.5 Settlement of employee travel receipts

The **"CRM-Project – Employee Expense Report"** is available to employees to claim costs incurred during travel time. This lists all the receipts of costs incurred by employees themselves within the time period selected.

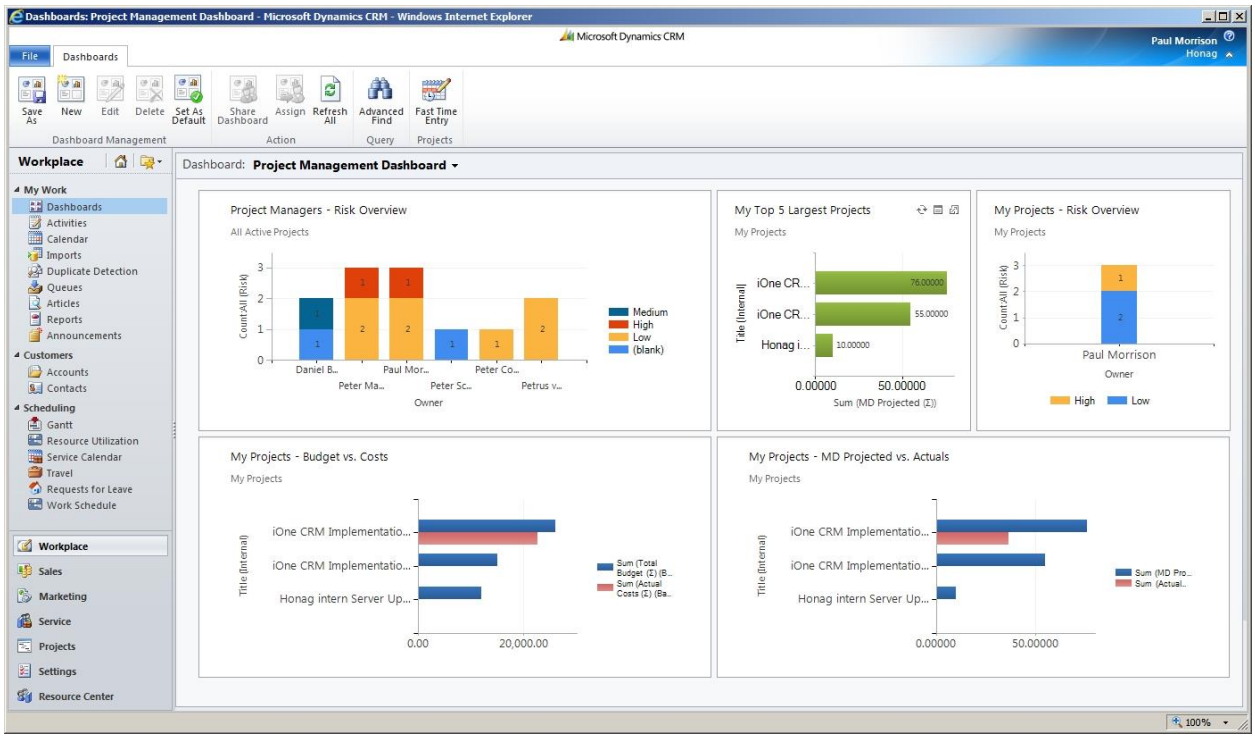
11 Project controlling

The controlling and analysis of projects are possible at all times. Inter-linked views for all relevant roles, as well as library of reports, charts and dashboards, are part of the delivered product. These are being extended continually.

The source code is provided for all reports, charts and dashboards. You are able to tailor this as required to your specific needs.

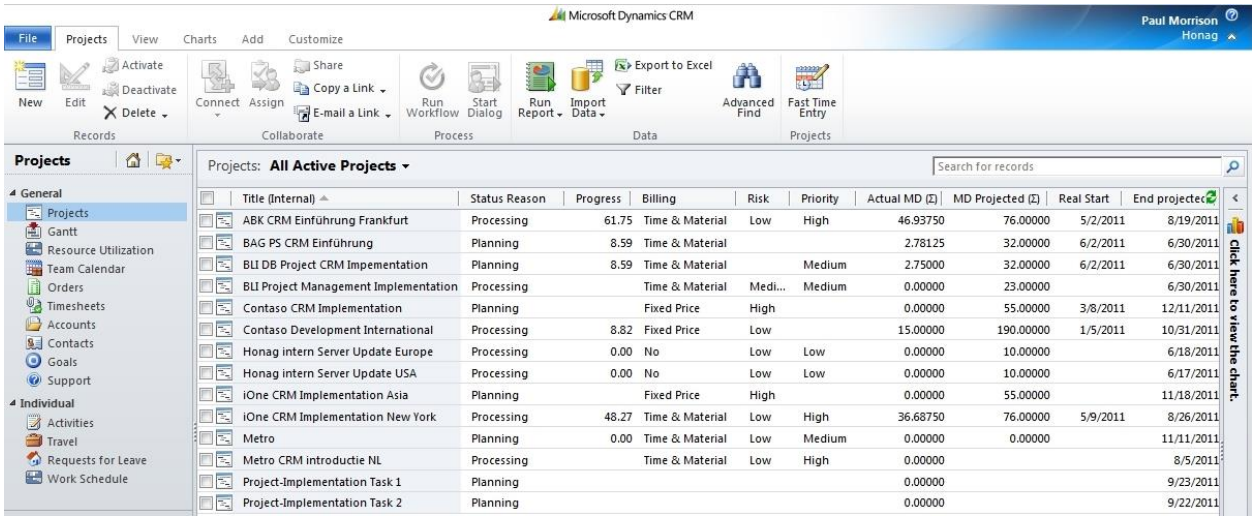
11.1 Dashboard

The dashboard in the workplace provides the Project Manager with a quick overview. It contains a selection of charts for project controlling. The dashboard has the following layout in the standard configuration. The dashboard can be modified and extended as required. List views from project views can be added, for example: **"My Project Participation"**.


Dashboards: Project Management Dashboard - Microsoft Dynamics CRM - Windows Internet Explorer
Microsoft Dynamics CRM
Paul Morrison
Honag
Dashboard: Project Management Dashboard
Project Managers - Risk Overview
My Top 5 Largest Projects
My Projects - Risk Overview
My Projects - Budget vs. Costs
My Projects - MD Projected vs. Actuals

11.2 Controlling in the user interface of Microsoft CRM

Within the list view of projects, CRM-Project provides different views (Ongoing Projects, My Projects, External Projects, etc.) showing a quick overview of projects and their relevant parameters.

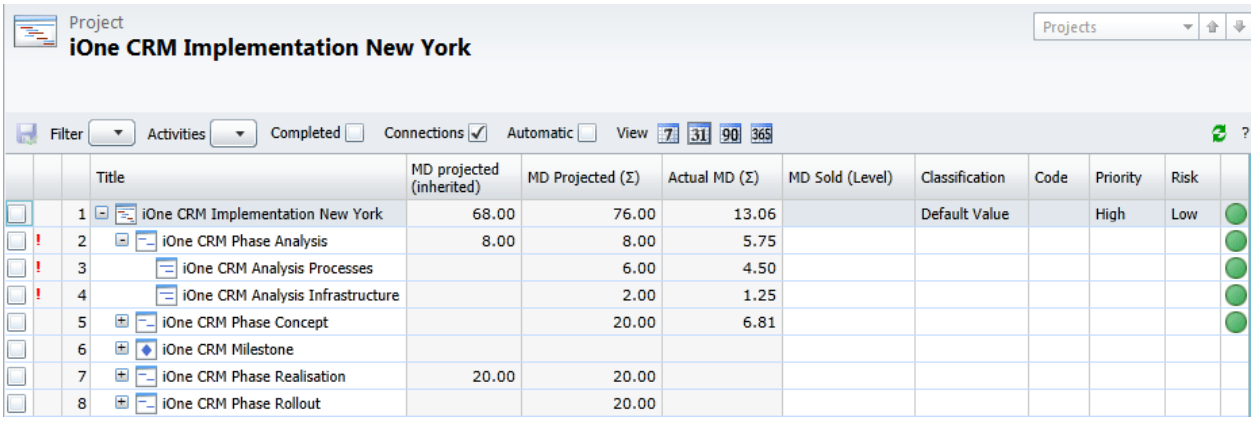


Title (Internal)	Status Reason	Progress	Billing	Risk	Priority	Actual MD (Σ)	MD Projected (Σ)	Real Start	End projected
ABK CRM Einführung Frankfurt	Processing	61.75	Time & Material	Low	High	46.93750	76.00000	5/2/2011	8/19/2011
BAG PS CRM Einführung	Planning	8.59	Time & Material			2.78125	32.00000	6/2/2011	6/30/2011
BLI DB Project CRM Impementation	Planning	8.59	Time & Material		Medium	2.75000	32.00000	6/2/2011	6/30/2011
BLI Project Management Implementation	Processing		Time & Material	Medi...	Medium	0.00000	23.00000		6/30/2011
Contaso CRM Implementation	Planning		Fixed Price	High		0.00000	55.00000	3/8/2011	12/11/2011
Contaso Development International	Processing	8.82	Fixed Price	Low		15.00000	190.00000	1/5/2011	10/31/2011
Honag intern Server Update Europe	Processing	0.00	No	Low	Low	0.00000	10.00000		6/18/2011
Honag intern Server Update USA	Processing	0.00	No	Low	Low	0.00000	10.00000		6/17/2011
iOne CRM Implementation Asia	Planning		Fixed Price	High		0.00000	55.00000		11/18/2011
iOne CRM Implementation New York	Processing	48.27	Time & Material	Low	High	36.68750	76.00000	5/9/2011	8/26/2011
Metro	Planning	0.00	Time & Material	Low	Medium	0.00000	0.00000		11/11/2011
Metro CRM introductie NL	Processing		Time & Material	Low	High	0.00000			8/5/2011
Project-Implementation Task 1	Planning					0.00000			9/23/2011
Project-Implementation Task 2	Planning					0.00000			9/22/2011

11.3 Project analysis with the Work Breakdown Structure

Every project, down to any project depth, can be analyzed and monitored with the Work Breakdown Structure. As an additional controlling tool, a light function is available in the last column that shows at a glance which project nodes:

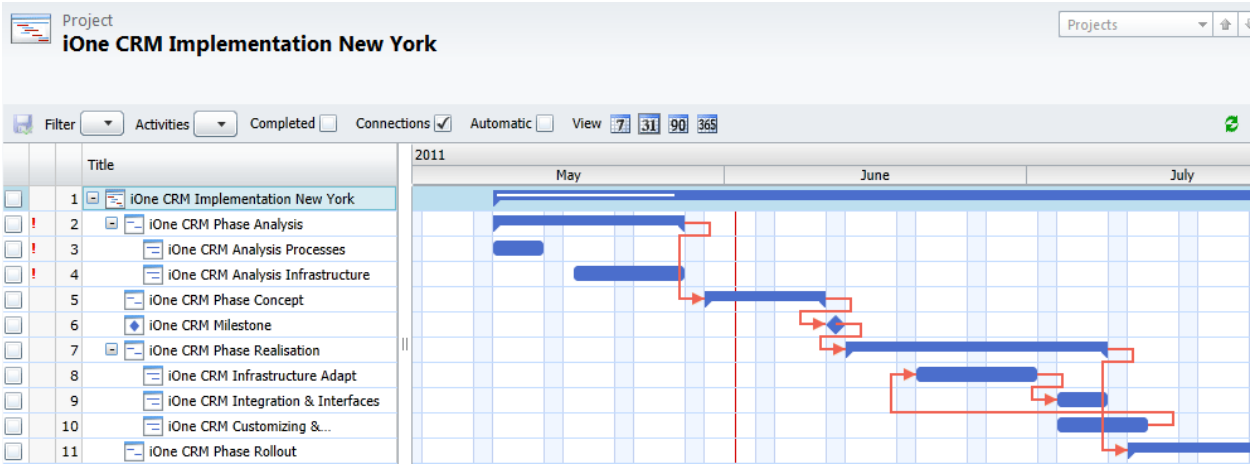
- are within budget (green),
- are in danger of running over budget (yellow) or,
- are run over budget (red).



			Title	MD projected (inherited)	MD Projected (Σ)	Actual MD (Σ)	MD Sold (Level)	Classification	Code	Priority	Risk
		1	iOne CRM Implementation New York	68.00	76.00	13.06		Default Value		High	Low
	!	2	iOne CRM Phase Analysis	8.00	8.00	5.75					
	!	3	iOne CRM Analysis Processes		6.00	4.50					
	!	4	iOne CRM Analysis Infrastructure		2.00	1.25					
		5	iOne CRM Phase Concept		20.00	6.81					
		6	iOne CRM Milestone								
		7	iOne CRM Phase Realisation	20.00	20.00						
		8	iOne CRM Phase Rollout		20.00						

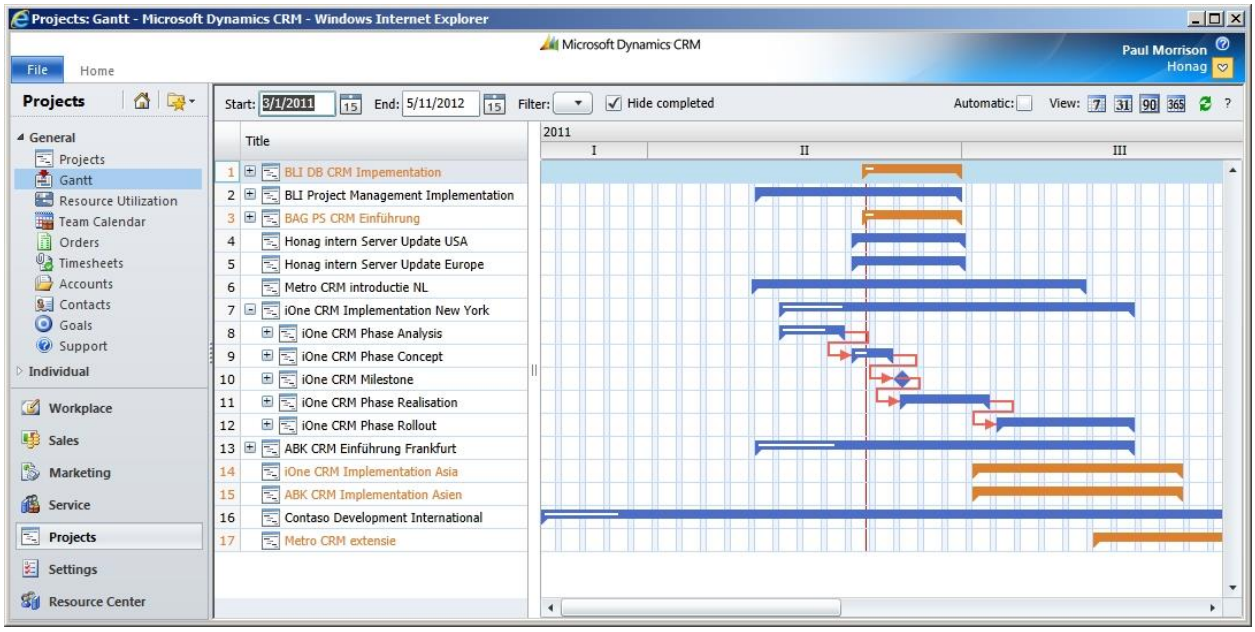
11.4 Project analysis with the Project Gantt chart

In addition to the Work Breakdown Structure, the project tree provides more information on the scheduled implementation time periods as well as the state of work and expense in individual project elements. Please refer to section 1.1.20 for details.

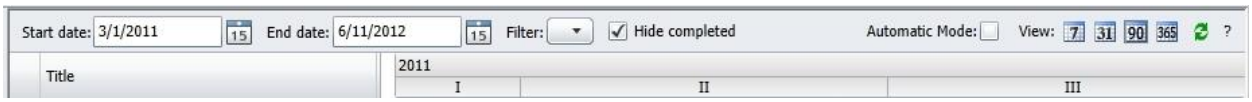


11.5 Project controlling with the organization-wide Gantt chart

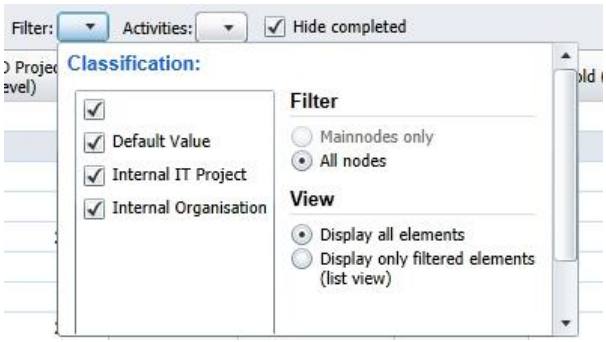
The organization-wide Gantt chart provides an overview of all the projects that are in processing or planning within your organization. If projects have sub project nodes, you can "expand" them by pressing the "+" sign in front of the project name.



The selection can be narrowed down with the time period and other filters.



Filter: This filter enables filtering using the Internal/External projects attribute as well as the projects classification.



Projects: This selection enables projects to be shown and narrowed down to the internal or external projects. Both project types are selected by default; this means all internal and external projects are shown. Please refer to section 2.3 for more information on the difference between internal and external projects.

Classification: This selection uses the Classification attribute to filter the elements shown (details on the attribute can be found in Section 5.1.2.2). The filter can be applied only to the main nodes of projects or to all project nodes. Any amount of classification values can be included/excluded. In the standard configuration, filtering pertains only to the main nodes in the project structure shown.

You can also select whether all elements of the project structure are shown or not. A grey background denotes elements not satisfying the criteria. You can also select "Display only filtered elements"; this hides all elements not matching the classification from view. For this, the structure of the project in this view is converted to a list view. Please refer to the detailed information on the Gantt chart in Section 5.3.2 for more information on the general functions within the Gantt chart and on **"Hide completed"**, automatic mode and the **"View"** option.

11.6 Project portfolio controlling with Project Portfolio report

The project Portfolio report can be started by going to Projects=>Run Reports=>Project Portfolio.

The report consists of two parts: the diagram and the project overview table.

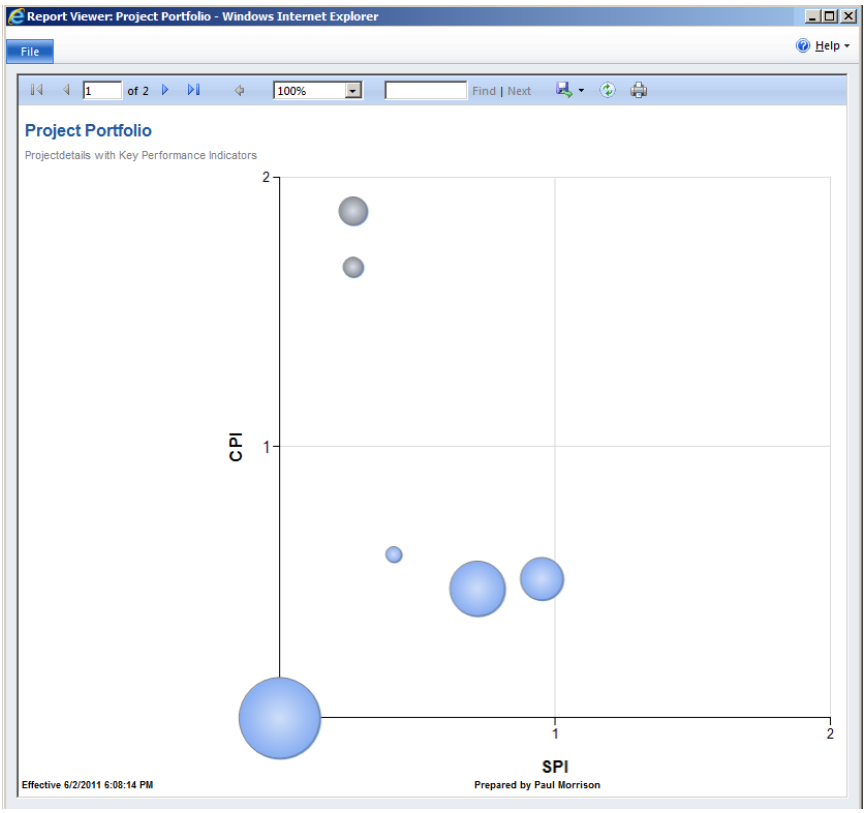
The diagram is based on the earned value analysis and represents the performance and cost deviation status of projects.

The circles in the matrix represent the projects. The circle sizes are determined by the total budget amount (Σ).

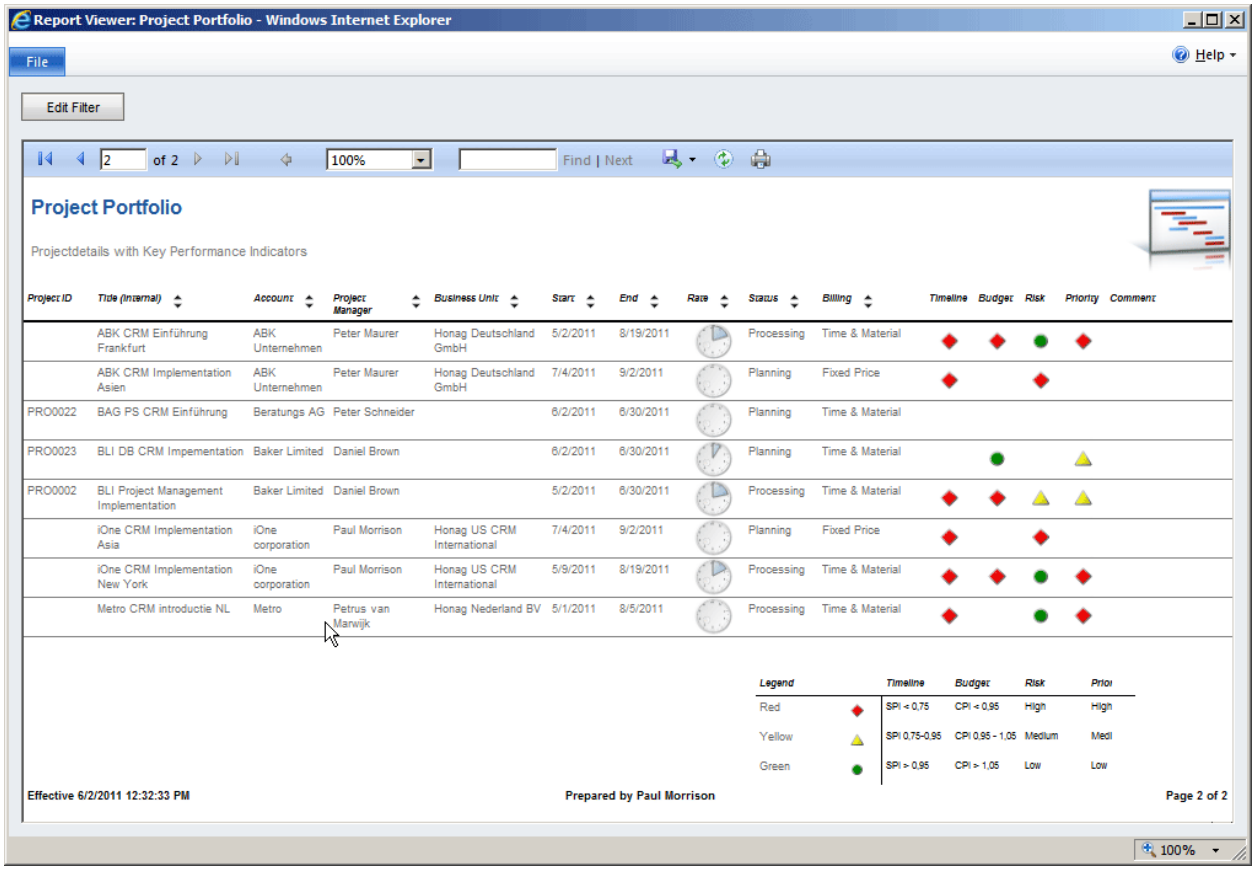
Internal projects are gray and external projects are blue.

The x-axis displays the Scheduled Performance Index (abbreviated: SPI). The index measures the actual project progress in relation to the timle progress.

If the calculated SPI and the performed work in the project is less than 1, the project is displayed on the matrix on the left hand side. If the calculated SPI is greater than 1, the project is represented on the right of 1.



The project overview table represents the most important project values and indicators. Looking at the overview, you can recognize the projects with high risk and priority.



11.7 Project data history

The history stores the most important project data that are stored during the planning stage. This occurs when the state of a project changes from **Planning to Processing**. Then values **MD Projected (Total)**, **MD Projected (Level)**, **Budget Projected (Total)** and **Budget Projected (Level)** are stored in the project entity (see also section **Error! Reference source not found.**).

11.8 Digital signature

The digital signature field is provided "out of the box", for personnel budget approvals (MD Projected), see section 5.1.4.3.

Furthermore, you can use the digital signature in the "Approved by" field for your individual purposes, approvals, and controlling processes.

To create individual signatures, add the field "Approved by" to the different areas of your CRM entities. For more details, we recommend taking a look at the CRM manual.

11.9 Project Management Reports

To improve clarity, project management and controlling of project, many project management reports are developed. They are discussed briefly below. A distinction is made between dashboard reports and CRM-Project Standard Reports or reports from a report package. The latter are in a separate report collection for On-Premise customers, to keep the online capabilities of the 4th module.

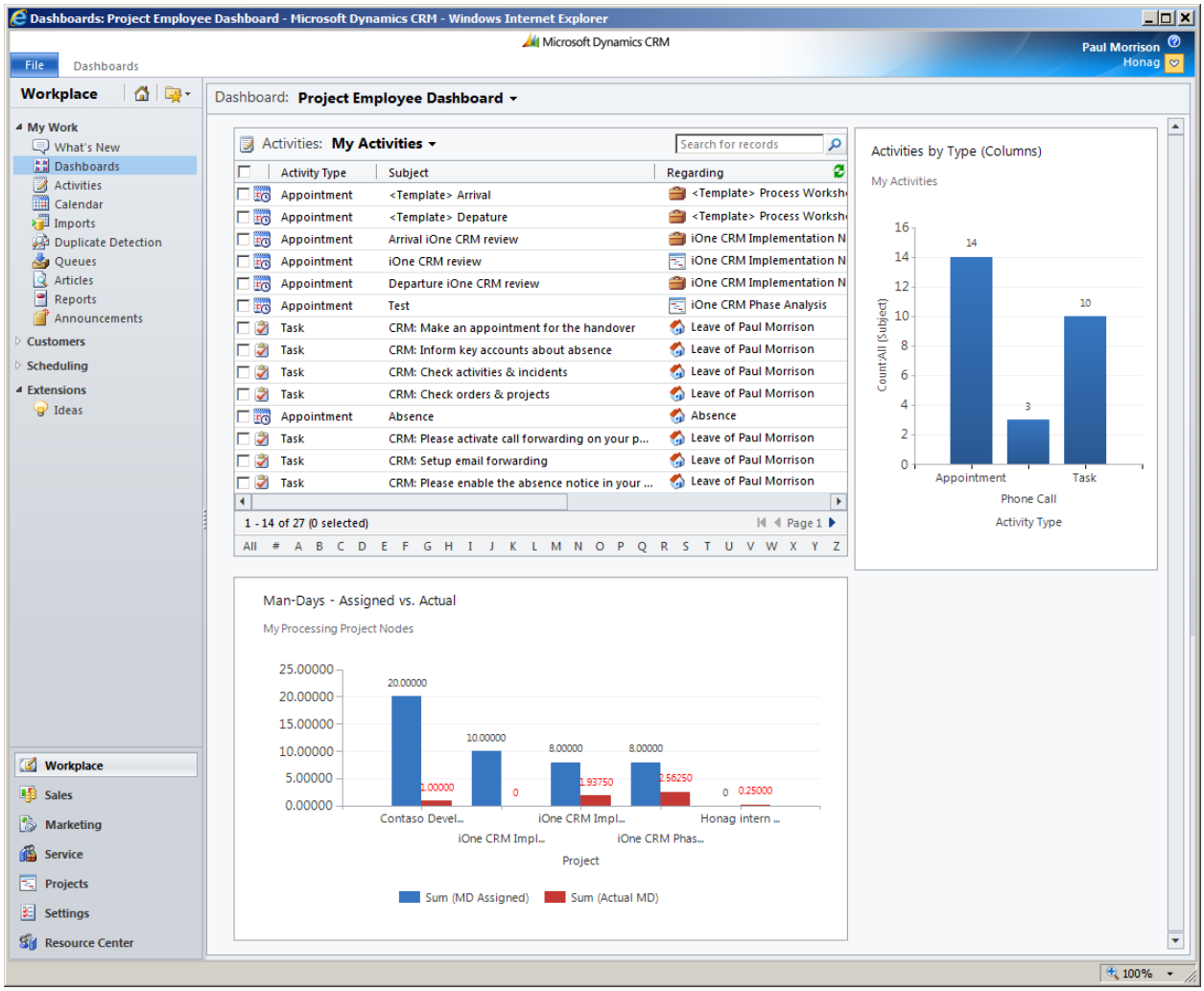
11.9.1 Dashboard Reports

Dashboard reports can be retrieved in the work area under dashboards, as we know from other areas of Microsoft CRM. You can switch between the individual dashboards using the selection list. A brief description of the individual schemata can be found below. For a description of the customization options and the creation of individual dashboards, use a commercially available CRM manual.

11.9.1.1 Project Employee Dashboard

The following dashboard is designed to support the daily work of individual employees. For this purpose, the following information is shown from the top right to bottom left of the window:

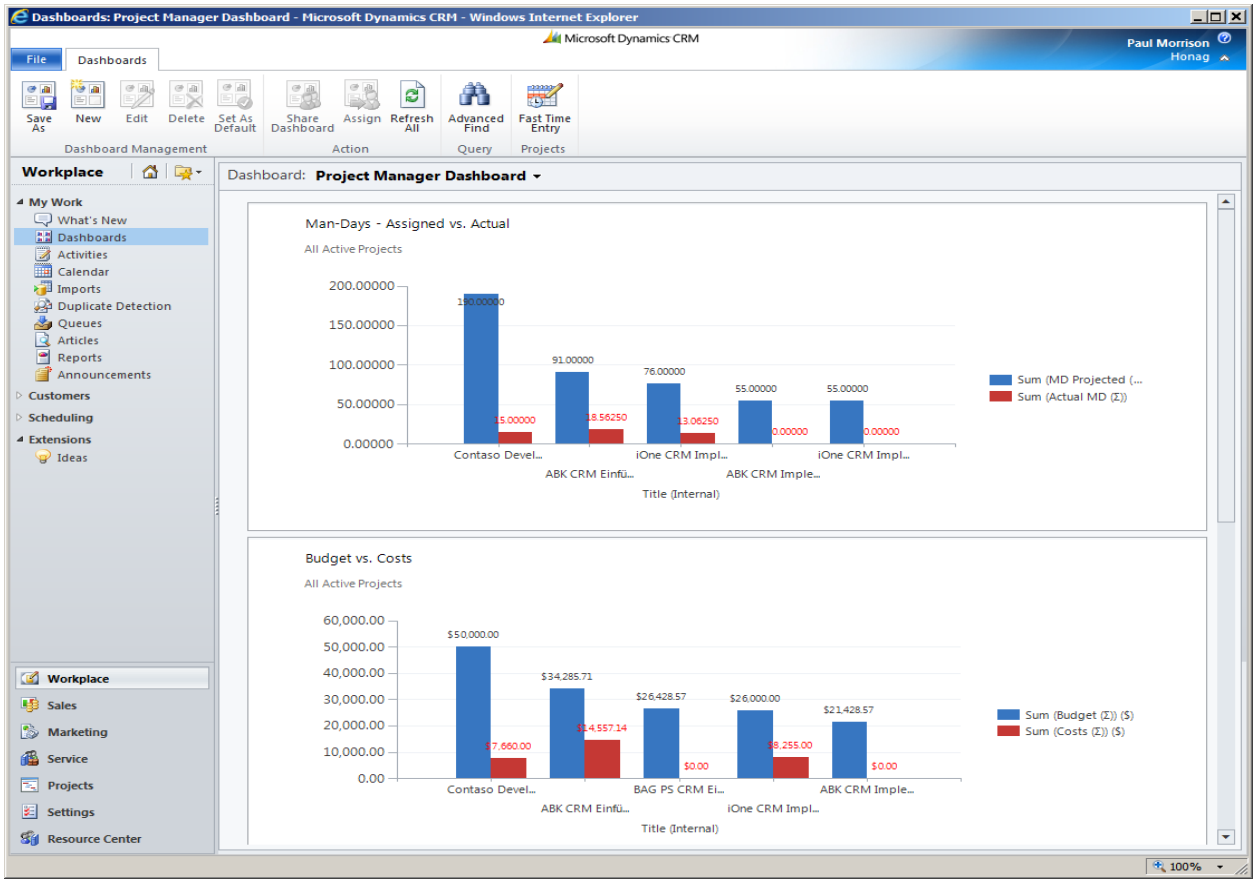
- Activities of the current user by type,
- Open activities of the current user,
- Currently running project nodes in which the user is scheduled.

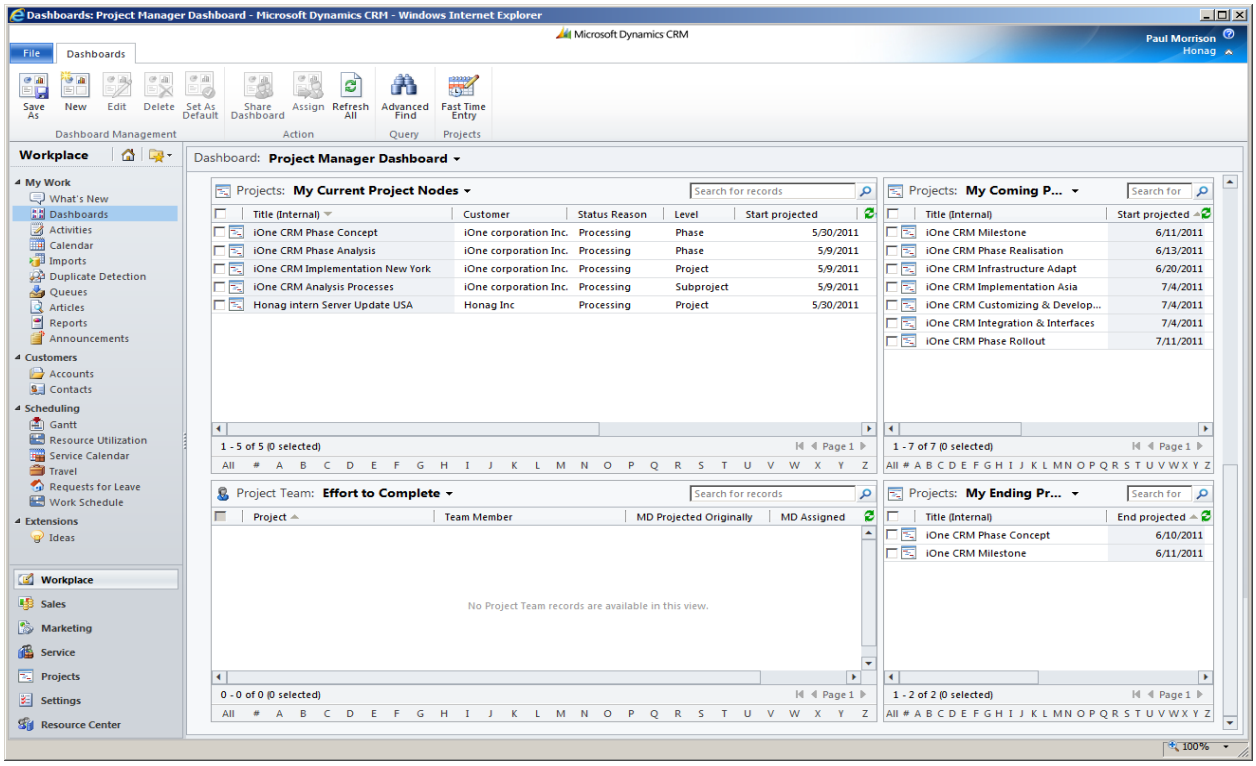


11.9.1.2 Project Manager Dashboard

This dashboard provides the project manager with an overview of the current state of their projects. Therefore specific days and costs are visualized as target-actual comparison. Below you will find some additional list views for:

- Currently running project node of the user,
- Upcoming project node of the user,
- Requests for required remaining effort of the user and,
- The user's project node which will be ending soon.

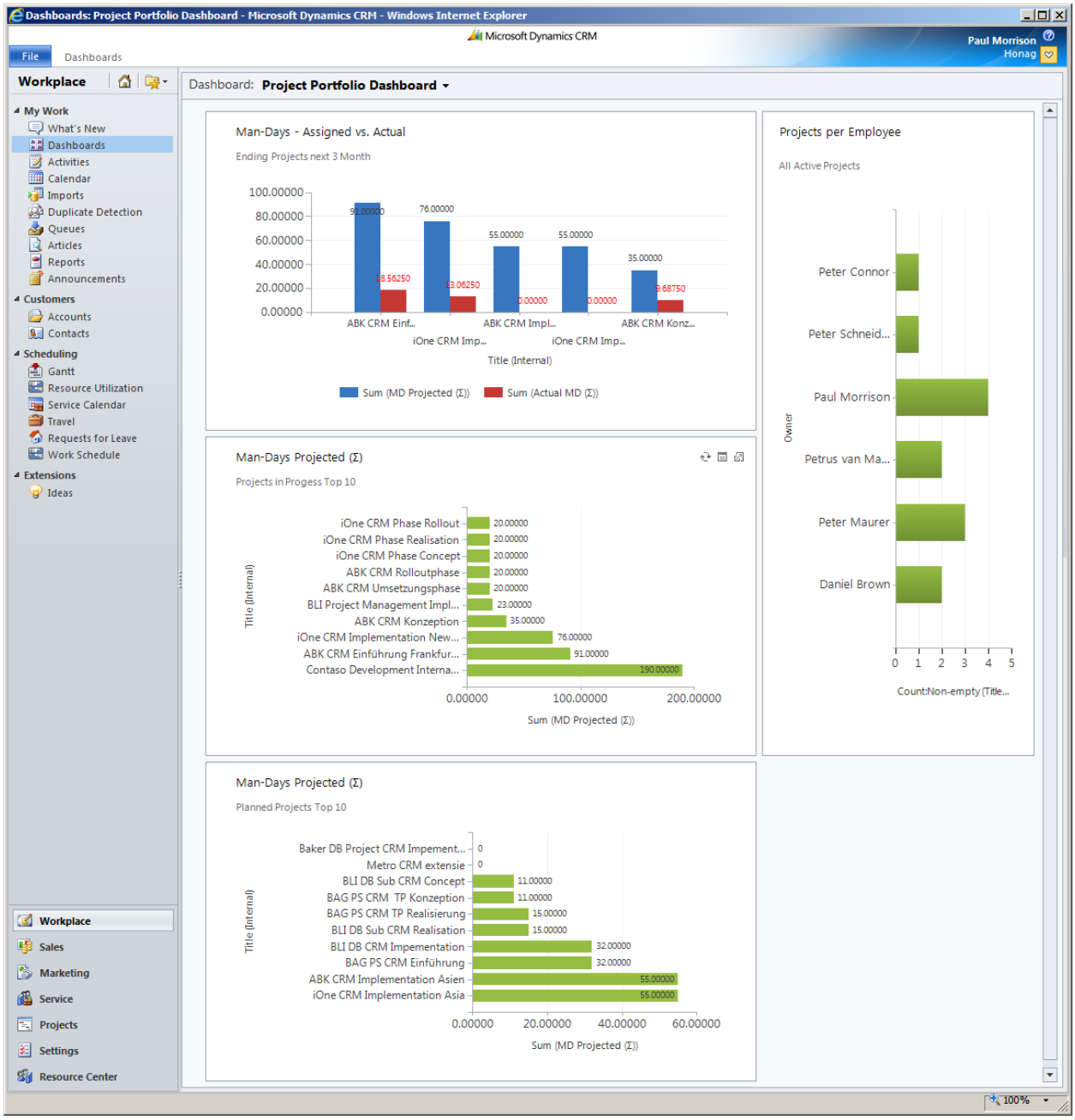




11.9.1.3 Project Portfolio Dashboard

To enable a complete overview of the projects in a portfolio, CRM-Project provides the following Dashboard reports:

- Assigned and actual man-days in the projects which will be ending in the next 3 months,
- Top 10 projects, in progress, by Man-days,
- An overview of projects, per employee and,
- Top 10 projects in planning by Man-days.



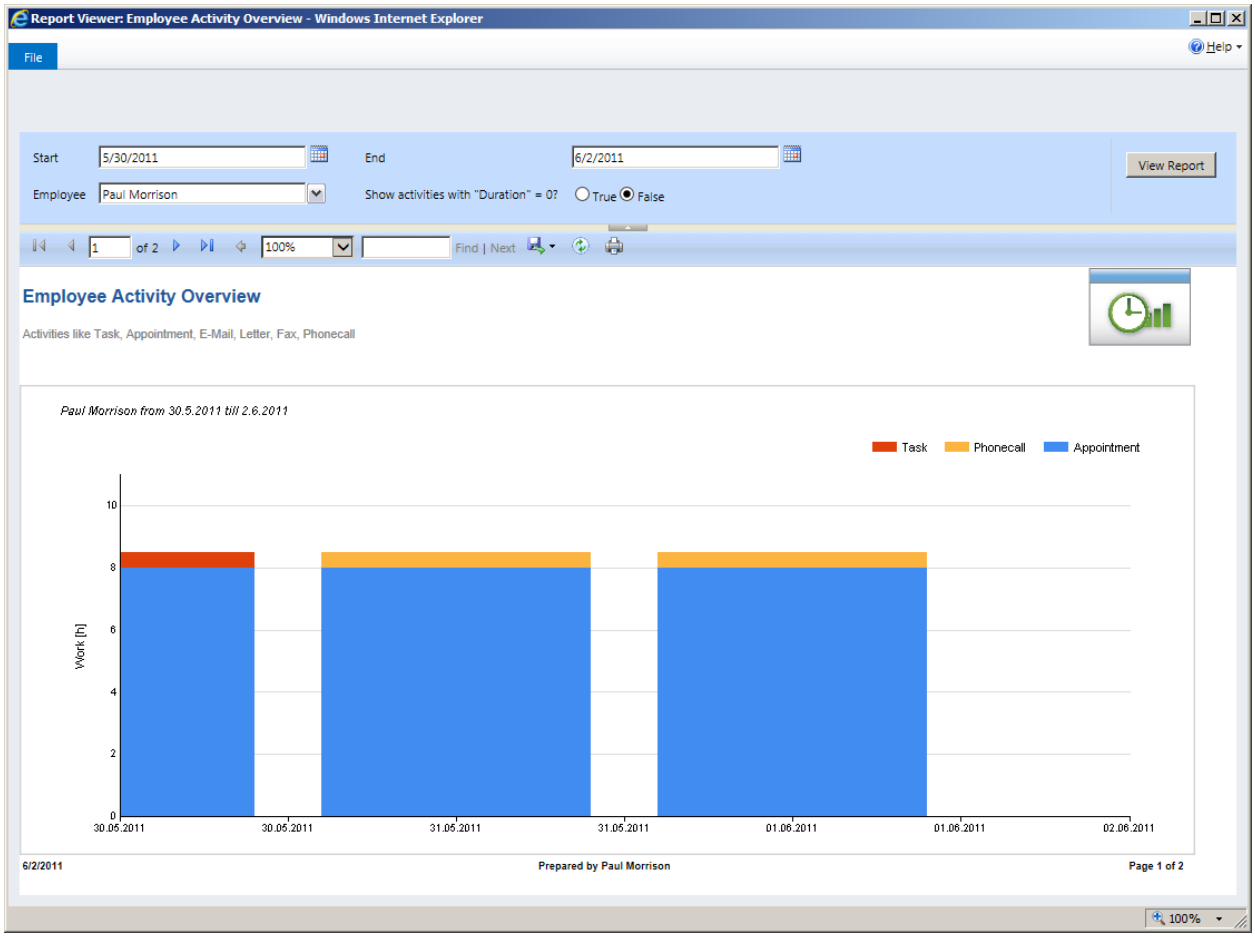
11.9.2 CRM-Project Standard Reports

These reports are located in the Workplace of the employee under "Reports". The online capabilities of Fetch XML reports allow these reports to be delivered with the xRM1 Solution. They are available both online and on-premise.

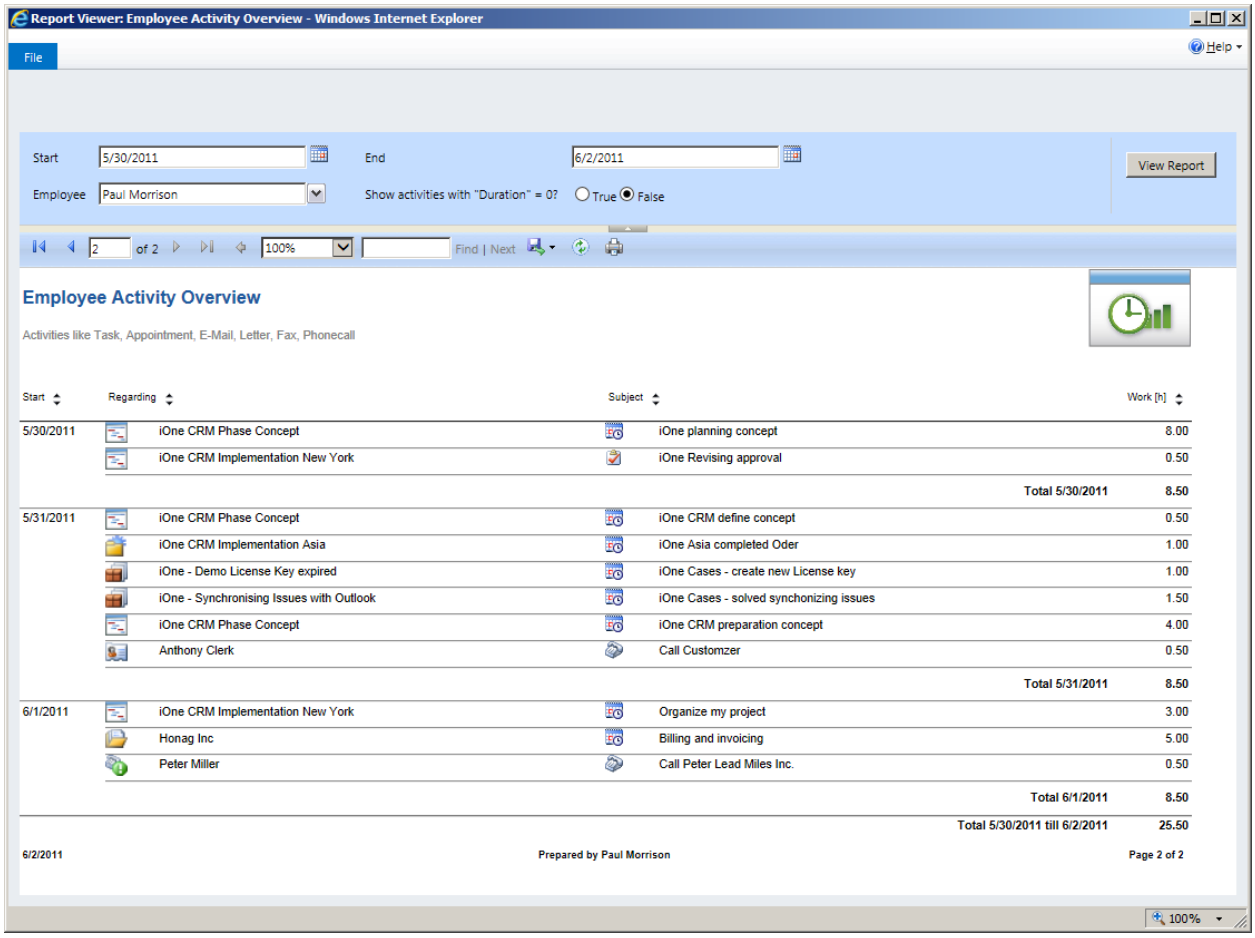
11.9.2.1 Employee Activity Overview

"Employee Activity Overview" report represents entered times for all relevant record types: projects, tickets, accounts, and opportunities, etc. Use this report to monitor and control the hours scheduled for all activity types, for one or multiple employee(s) for a selected period of time.

The first page displays a time sheet table; the following pages provide information concerning details of the reported records. A depiction of the differentiation by activity types is displayed below.



The following pages below provide information on the details of the reported records.


Report Viewer: Employee Activity Overview - Windows Internet Explorer
File
Help
Start 5/30/2011
End 6/2/2011
View Report
Employee Paul Morrison
Show activities with "Duration" = 0? True False
2 of 2
100%
Find | Next
Employee Activity Overview
Activities like Task, Appointment, E-Mail, Letter, Fax, Phonecall
Start
Regarding
Subject
Work [h]
5/30/2011 iOne CRM Phase Concept iOne planning concept 8.00
iOne CRM Implementation New York iOne Revising approval 0.50
Total 5/30/2011 8.50
5/31/2011 iOne CRM Phase Concept iOne CRM define concept 0.50
iOne CRM Implementation Asia iOne Asia completed Oder 1.00
iOne - Demo License Key expired iOne Cases - create new License key 1.00
iOne - Synchronising Issues with Outlook iOne Cases - solved synchonizing issues 1.50
iOne CRM Phase Concept iOne CRM preparation concept 4.00
Anthony Clerk Call Customzer 0.50
Total 5/31/2011 8.50
6/1/2011 iOne CRM Implementation New York Organize my project 3.00
Honag Inc Billing and invoicing 5.00
Peter Miller Call Peter Lead Miles Inc. 0.50
Total 6/1/2011 8.50
Total 5/30/2011 till 6/2/2011 25.50
6/2/2011
Prepared by Paul Morrison
Page 2 of 2
100%

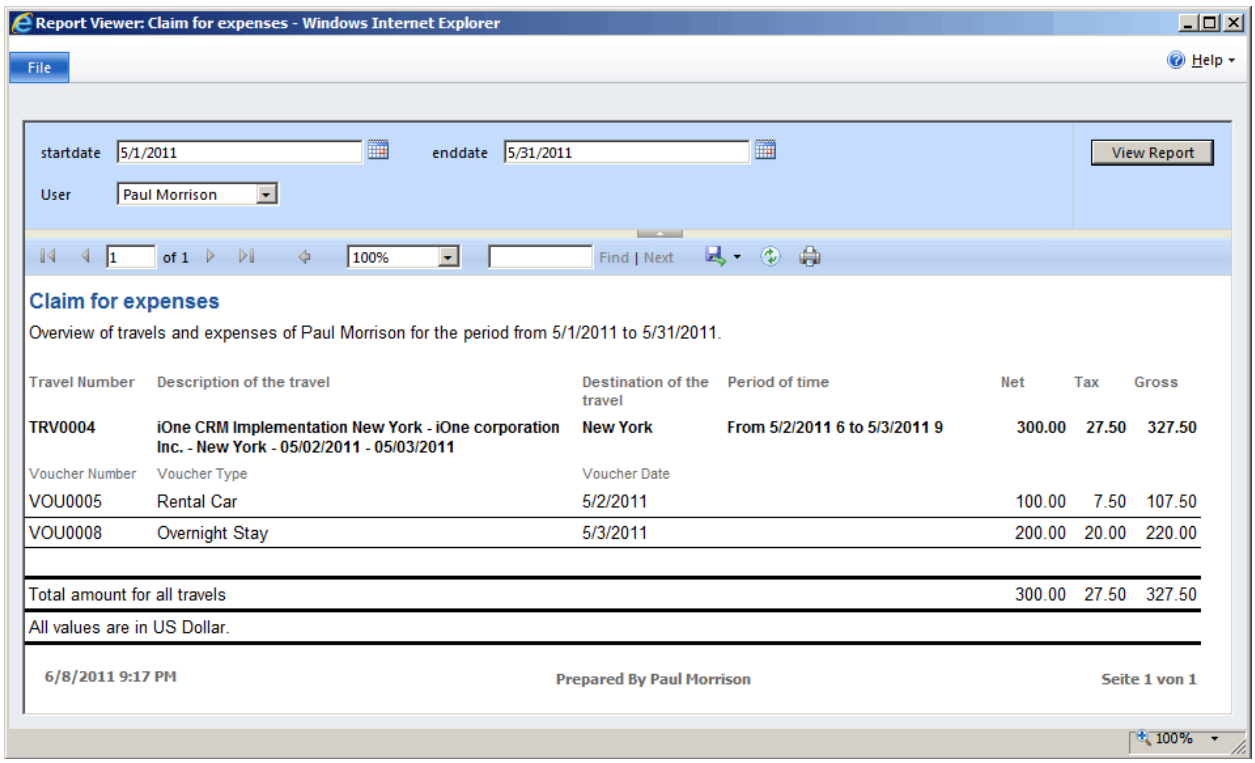
The records are sorted by date. You can also use the sorting downward facing arrow besides the table heading to rearrange the records by day.

The report shows you the amount of working hours per day and the total for the selected period of time.

If you need more details on a record, just click on the relevant line. A new window with a Microsoft CRM form record will open.

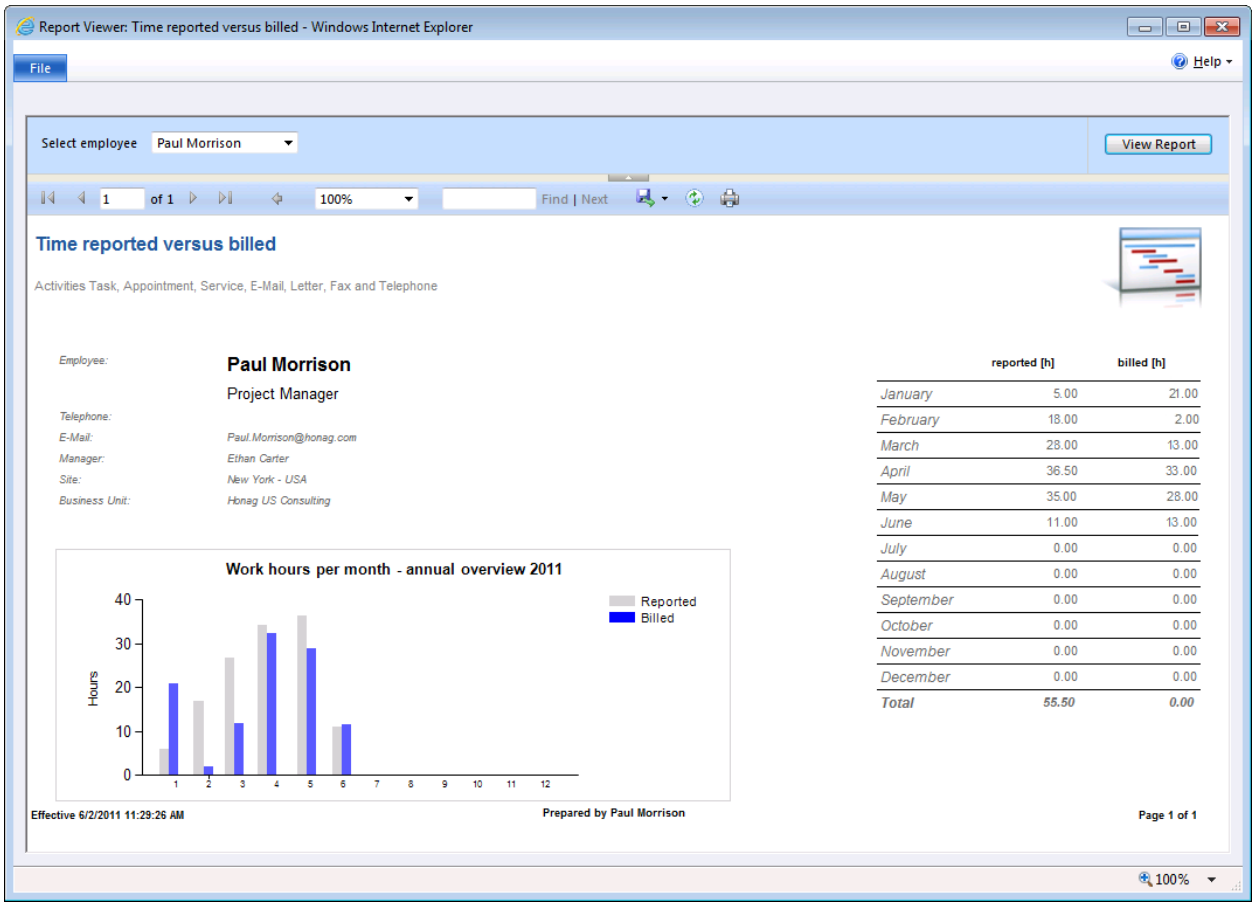
11.9.2.2 Claim for Expenses

This report provides all travel vouchers of the selected employee for a certain period of time. Only those vouchers are displayed which "Paid by" field is set to "Employee" and which status is "inactive".


Report Viewer: Claim for expenses - Windows Internet Explorer
File
Help
startdate 5/1/2011
enddate 5/31/2011
View Report
User Paul Morrison
1 of 1
100%
Find | Next
Claim for expenses
Overview of travels and expenses of Paul Morrison for the period from 5/1/2011 to 5/31/2011.
Travel Number
Description of the travel
Destination of the travel
Period of time
Net
Tax
Gross
TRV0004
iOne CRM Implementation New York - iOne corporation Inc. - New York - 05/02/2011 - 05/03/2011
New York
From 5/2/2011 6 to 5/3/2011 9
300.00
27.50
327.50
Voucher Number
Voucher Type
Voucher Date
VOU0005
Rental Car
5/2/2011
100.00
7.50
107.50
VOU0008
Overnight Stay
5/3/2011
200.00
20.00
220.00
Total amount for all travels
300.00
27.50
327.50
All values are in US Dollar.
6/8/2011 9:17 PM
Prepared By Paul Morrison
Seite 1 von 1
100%

11.9.2.3 Time reported vs. billed

Use this report to track hours scheduled for all project-related activities, for each employee, per month. The report differentiates between reported hours (all activities marked as completed) and billed hours. An activity is considered as billed, once the "Process Billing" button (in the billing function) has been activated.



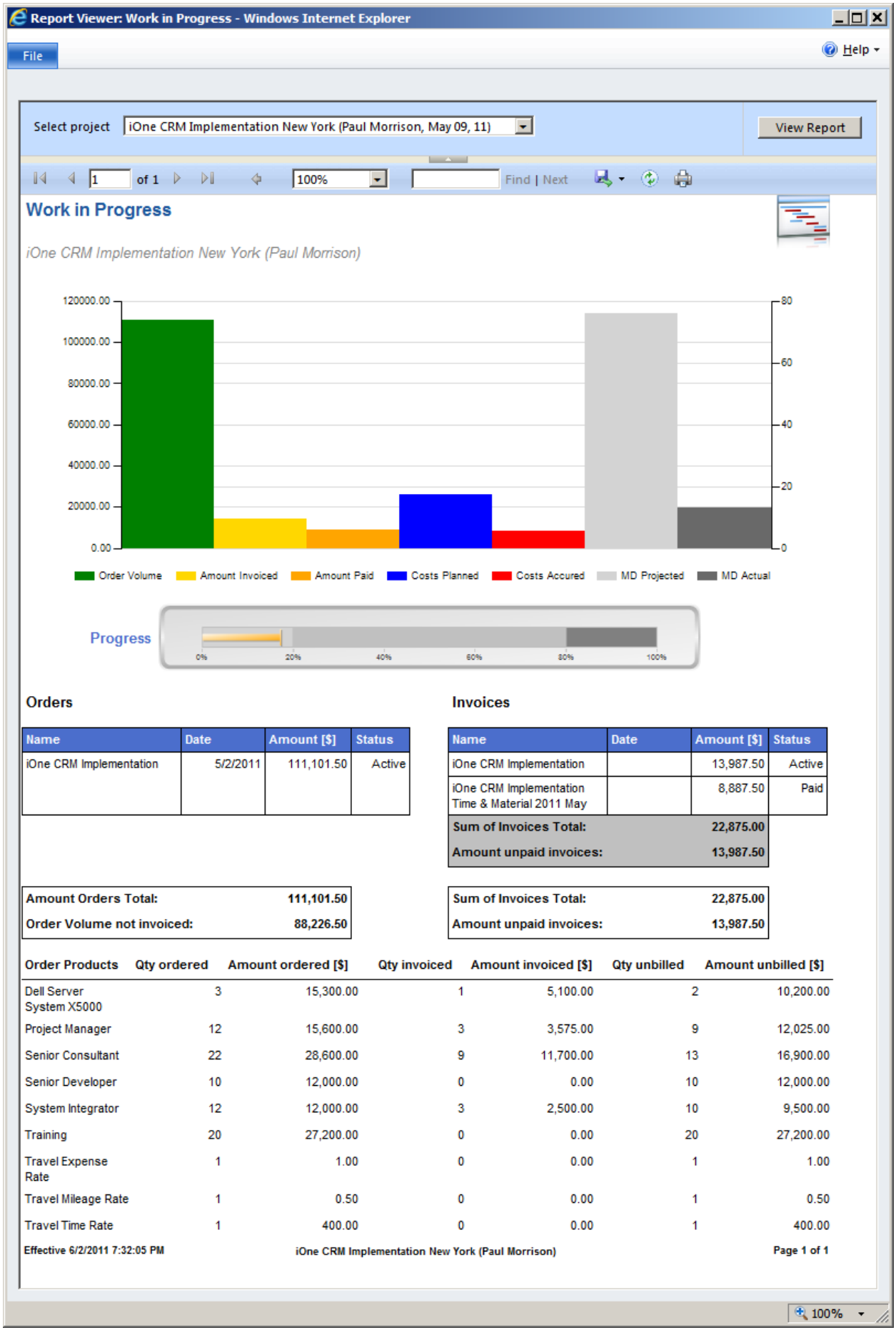
11.9.3 Reports from the report package

In addition to the normal product scope for on-premise customers, an additional report package has been provided. They are not available in a Microsoft Online installation, since the corresponding rights on the server are needed.

11.9.3.1 Work in Progress

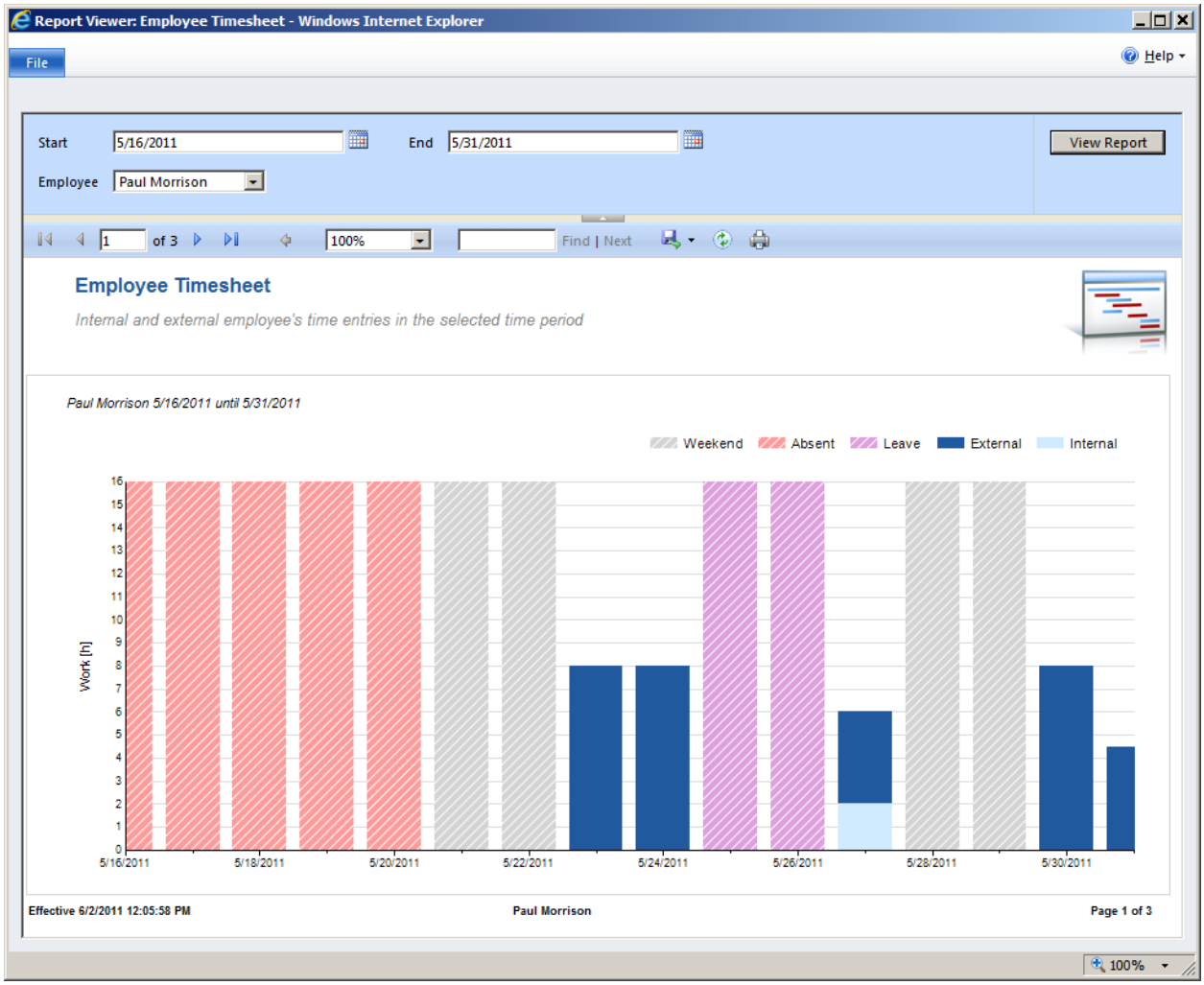
With the help of the Work in Progress report, many important project values can be viewed at a glance. Below you will find a description of the information included in the report:

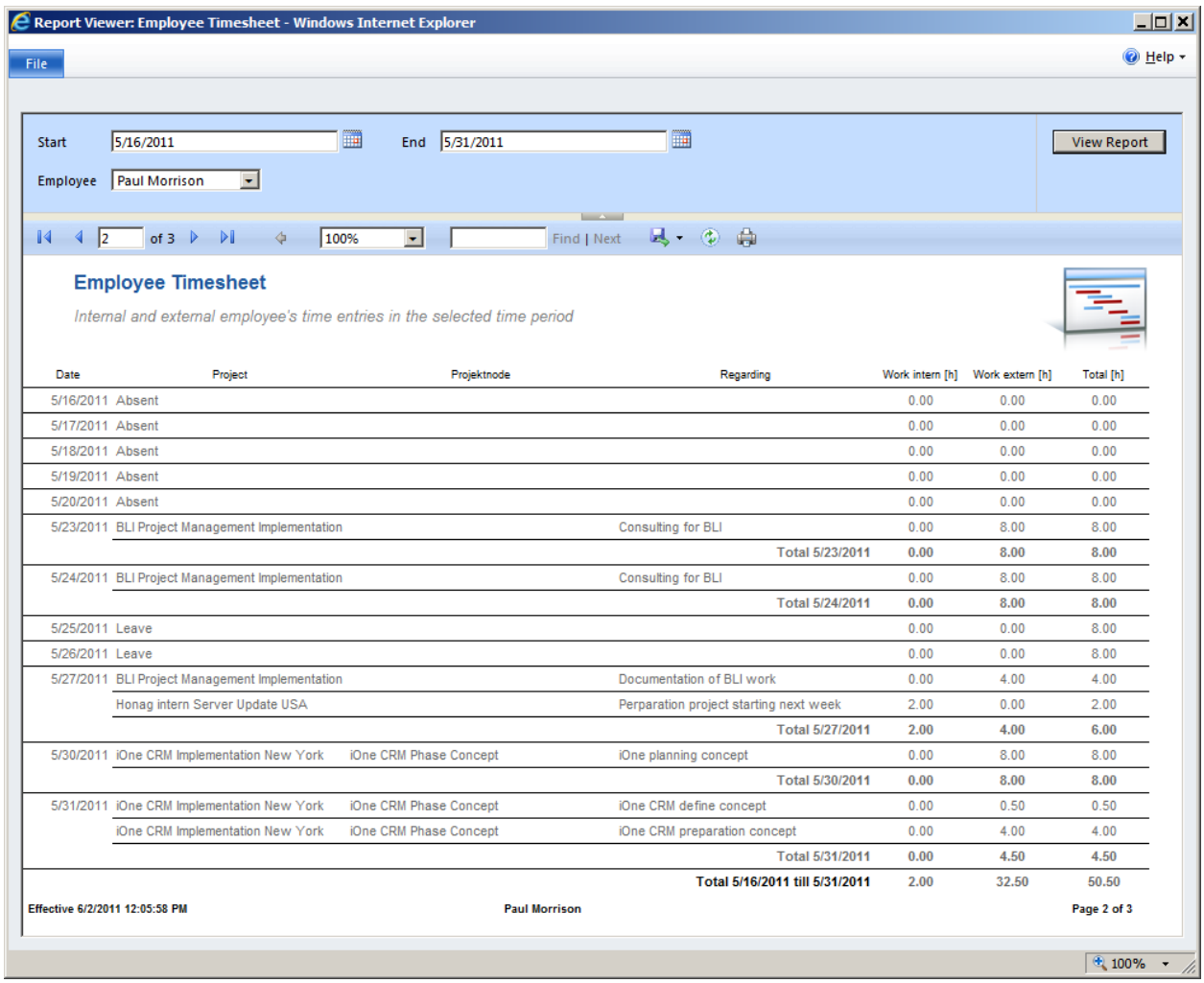
- The order's value: sum of all related order amounts (green),
- The amount invoiced: sum of all project related invoices (yellow),
- The amount paid: sum of all project related and paid invoices (orange),
- Costs planned: scheduled monetary project budget, total (blue),
- Costs occurred: actual project costs (red),
- MD projected: scheduled personnel project budget, total (light grey)
- MD actual: project related actual (reported) man-days (dark grey)
- Overview of all orders (associated with the project),
- Overview of all invoices (associated with the project),
- A comparison of orders and invoices, as well as days still open thereof.


Report Viewer: Work in Progress - Windows Internet Explorer
File
Help
Select project
iOne CRM Implementation New York (Paul Morrison, May 09, 11)
View Report
1
of 1
100%
Find | Next
Work in Progress
iOne CRM Implementation New York (Paul Morrison)
120000.00
100000.00
80000.00
60000.00
40000.00
20000.00
0.00
80
60
40
20
0
Order Volume
Amount Invoiced
Amount Paid
Costs Planned
Costs Accured
MD Projected
MD Actual
Progress
0%
20%
40%
60%
80%
100%
Orders
Name
Date
Amount [$]
Status
iOne CRM Implementation
5/2/2011
111,101.50
Active
Amount Orders Total:
111,101.50
Order Volume not invoiced:
88,226.50
Invoices
Name
Date
Amount [$]
Status
iOne CRM Implementation
13,987.50
Active
iOne CRM Implementation Time & Material 2011 May
8,887.50
Paid
Sum of Invoices Total:
22,875.00
Amount unpaid invoices:
13,987.50
Sum of Invoices Total:
22,875.00
Amount unpaid invoices:
13,987.50
Order Products
Qty ordered
Amount ordered [$]
Qty invoiced
Amount invoiced [$]
Qty unbilled
Amount unbilled [$]
Dell Server System X5000
3
15,300.00
1
5,100.00
2
10,200.00
Project Manager
12
15,600.00
3
3,575.00
9
12,025.00
Senior Consultant
22
28,600.00
9
11,700.00
13
16,900.00
Senior Developer
10
12,000.00
0
0.00
10
12,000.00
System Integrator
12
12,000.00
3
2,500.00
10
9,500.00
Training
20
27,200.00
0
0.00
20
27,200.00
Travel Expense Rate
1
1.00
0
0.00
1
1.00
Travel Mileage Rate
1
0.50
0
0.00
1
0.50
Travel Time Rate
1
400.00
0
0.00
1
400.00
Effective 6/2/2011 7:32:05 PM
iOne CRM Implementation New York (Paul Morrison)
Page 1 of 1
100%

11.9.3.2 Employee timesheet

The employee timesheet provides the employee as well as executives with an overview of the services of all project deliveries and unavailable time such as holidays and absences. While the first page shows a graphic schedule summary, the following pages provide information on the details of the services provided. A depiction of the differences between internal and external postings is displayed.





Employee Timesheet

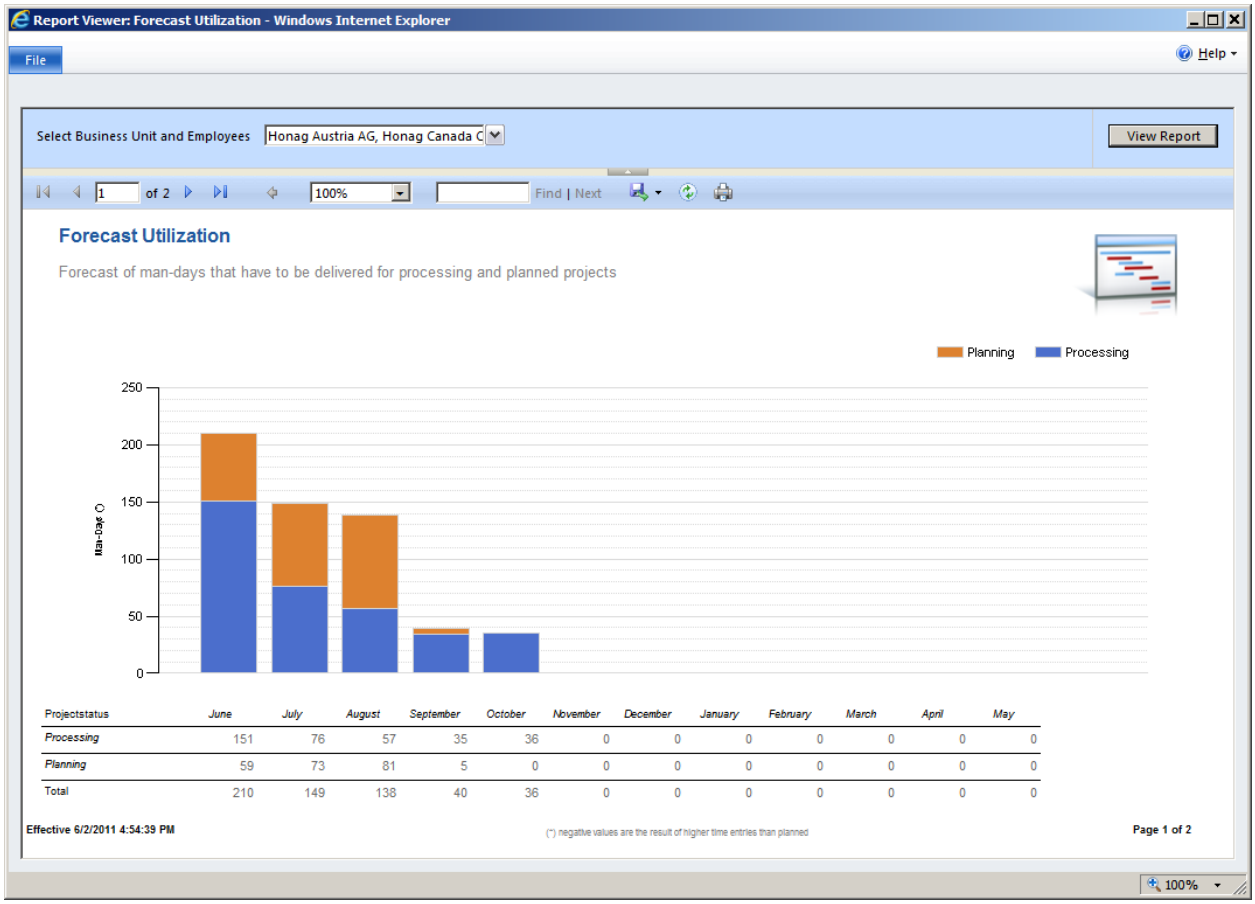
Internal and external employee's time entries in the selected time period

Date	Project	Projektnode	Regarding	Work intern [h]	Work extern [h]	Total [h]
5/16/2011	Absent			0.00	0.00	0.00
5/17/2011	Absent			0.00	0.00	0.00
5/18/2011	Absent			0.00	0.00	0.00
5/19/2011	Absent			0.00	0.00	0.00
5/20/2011	Absent			0.00	0.00	0.00
5/23/2011	BLI Project Management Implementation		Consulting for BLI	0.00	8.00	8.00
			Total 5/23/2011	**0.00**	**8.00**	**8.00**
5/24/2011	BLI Project Management Implementation		Consulting for BLI	0.00	8.00	8.00
			Total 5/24/2011	**0.00**	**8.00**	**8.00**
5/25/2011	Leave			0.00	0.00	8.00
5/26/2011	Leave			0.00	0.00	8.00
5/27/2011	BLI Project Management Implementation		Documentation of BLI work	0.00	4.00	4.00
	Honag intern Server Update USA		Perparation project starting next week	2.00	0.00	2.00
			Total 5/27/2011	**2.00**	**4.00**	**6.00**
5/30/2011	iOne CRM Implementation New York	iOne CRM Phase Concept	iOne planning concept	0.00	8.00	8.00
			Total 5/30/2011	**0.00**	**8.00**	**8.00**
5/31/2011	iOne CRM Implementation New York	iOne CRM Phase Concept	iOne CRM define concept	0.00	0.50	0.50
	iOne CRM Implementation New York	iOne CRM Phase Concept	iOne CRM preparation concept	0.00	4.00	4.00
			Total 5/31/2011	**0.00**	**4.50**	**4.50**
			Total 5/16/2011 till 5/31/2011	**2.00**	**32.50**	**50.50**

Effective 6/2/2011 12:05:58 PM **Paul Morrison** **Page 2 of 3**

11.9.3.3 Forecast Utilization

The report summary provides a preview of the future utilization, categorized on a monthly basis. The respective projects' planning data are presented in graphical and tabular form.


Report Viewer: Forecast Utilization - Windows Internet Explorer
File
Help
Select Business Unit and Employees
Honag Austria AG, Honag Canada C
View Report
1
of 2
100%
Find | Next
Forecast Utilization
Forecast of man-days that have to be delivered for processing and planned projects
Planning
Processing
250
200
150
100
50
0
Man-Days
Projectstatus June July August September October November December January February March April May
Processing 151 76 57 35 36 0 0 0 0 0 0 0
Planning 59 73 81 5 0 0 0 0 0 0 0 0
Total 210 149 138 40 36 0 0 0 0 0 0 0
Effective 6/2/2011 4:54:39 PM
(*) negative values are the result of higher time entries than planned
Page 1 of 2
100%

12 Billing

The billing component of CRM-Project enables youto bill services to customers, employees and external resources out of projects. Billing by fixed prices and by time & material are supported. Billing is performed in four simple steps:

1) Determination of the billing period and the basis (order)

The services entered in the project can be billed by freely definable time periods (months, quarters, etc.). If required, selected services can be marked for later billing. These will then be automatically suggested by the system in the next round of billing.

(Parallel) billing in relation to different orders, even with different terms and conditions, is also supported.

2) Preparation of entries

Prior to the billing process, the entered times are processed very conveniently in a single overview and services having a relevance to billing are marked as such. Spelling mistakes and incorrect formulations can be removed or corrected easily.

One of the special features is the ability to invoice services differing to the work time entered.

Travel costs and travel times entered for the project can also be invoiced. The order can be used to specify how billing is for travel times (flat-rate amount for every trip, pro-rata hourly rate, fixed hourly rate, no billing). For travel costs, all possible options are also available via the order for billing (flat-rate billing, receipt-based billing, no billing). The Microsoft CRM products in the order are used to define the rates used for billing (e.g. billing of travel time/hour, mileage allowance, etc.).

3) Generation of timesheets

The generation of timesheets is fully automatic at the press of a button. A Microsoft CRM report is used as the basis for the timesheet. This can be tailored to your individual needs. You can then print the timesheet as well as save it as a PDF file or Excel document.

4) Concluding the billing process

With one click, the entries in the timesheet are marked as billed, meaning they are not suggested for billing again by the system in the next billing process. The system also generates the summary of billed services by product level. This list is used to create the invoice in the invoicing system. The transfer of information can be done manually, automated with workflows or with web service to ERP systems (e.g. SAP, Dynamics GP, Dynamics AX …).

12.1 Prerequisites for the billing process

The prerequisites for using the billing functions in a project:

- The basic settings necessary are configured.
- Information on users, services, products and price lists are complete.
- There is at least one order assigned to the project.
- The order contains the required settings for billing.
- Available for all time entries of the project is which service was carried out.

Besides the basic settings, the order is a central element in billing because this is where all the agreements made with the customer and having a relevance to billing are kept. These are, for example, the volume of the service bought, its price, discounts, and how to handle travel costs. In the 1st module of Microsoft CRM (Sales), the orders required for billing are created (and the project assignment added).

12.1.1 Users, services, products and price lists

Complete all the information and records on users, services, products and price lists. Please refer to Section 14 for details.

12.1.2 Basic settings

Configure the basic settings as regards:

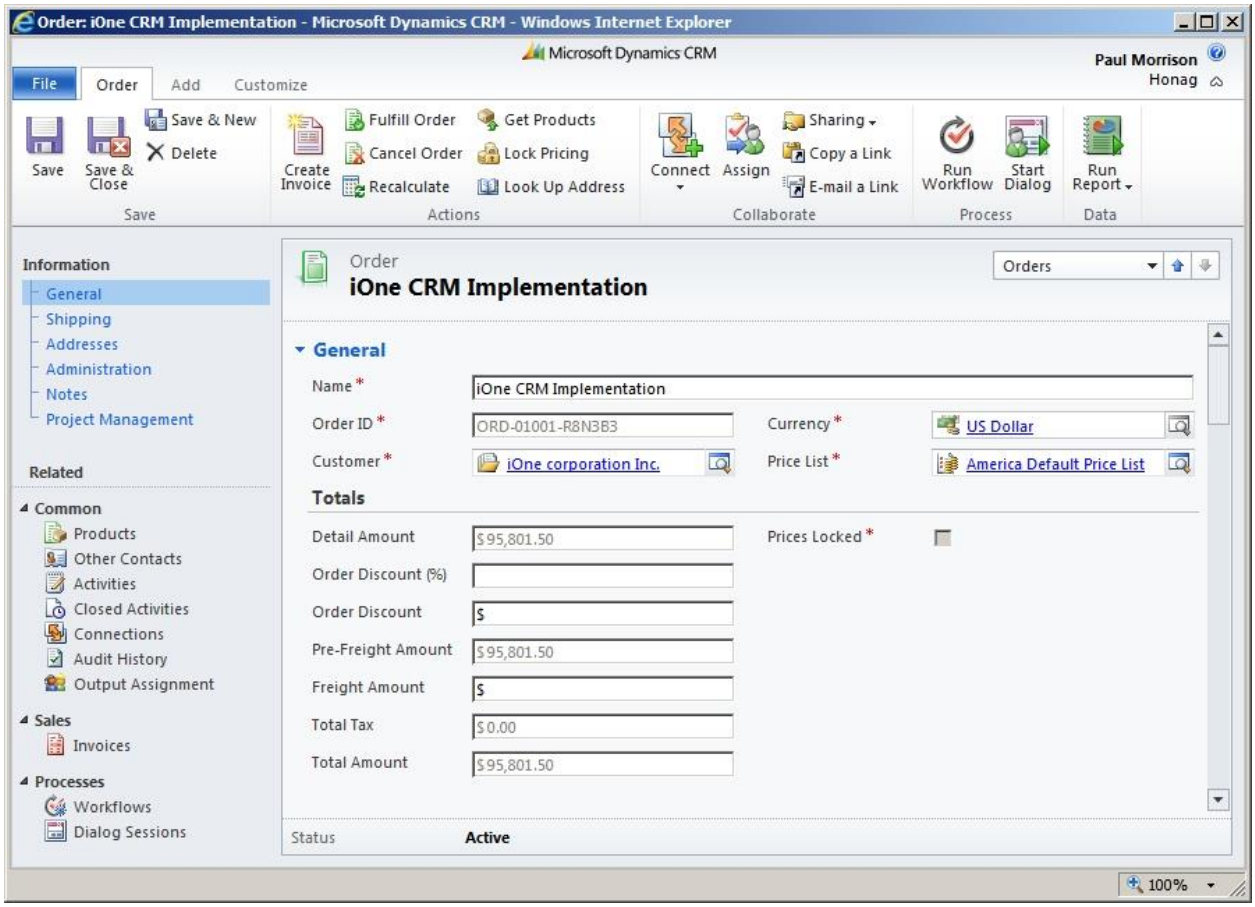
- Product-Service Assignment,
- Assignment of travel products and,
- Connection of services to products.

Please refer to Section 15for details.

12.1.3 Assignment of a project to a customer order

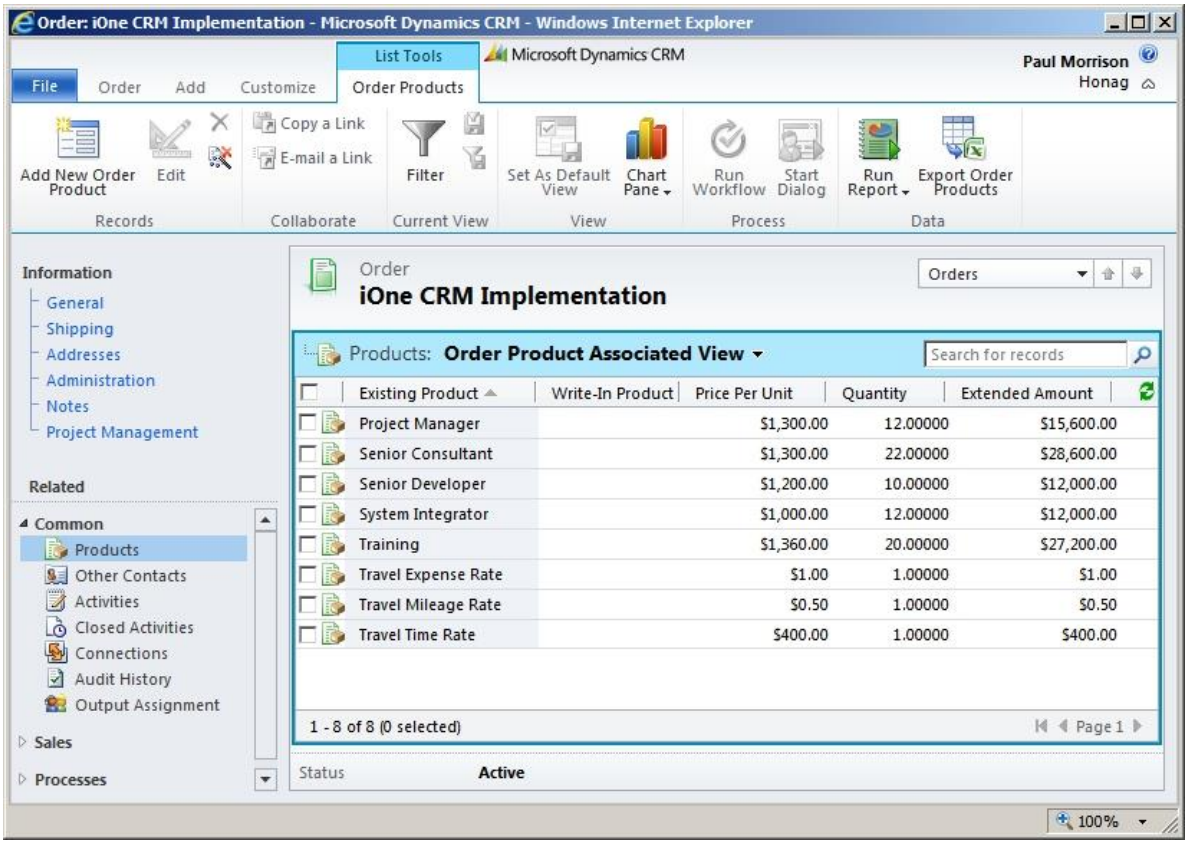
Assign at least one order to the project. In this order are the commercial terms and conditions for the customer defined in the order. These are used by the project for billing.

Projects can also be directly generated from the order. All relevant information for the project will automatically be handed over.



12.1.4 Order products

Single order positions (order products) can be stored in an order based on the standard function of Microsoft CRM. For orders assigned to a project, it is a mandatory that you list the types of services you sell to your customers in projects, or services that are rendered in the project, as products in accordance with the sold terms and conditions in the order. Please refer to the Microsoft CRM User Documentation for more details on creating orders and products, and the assignment of products to order positions.



When billing projects, CRM-Project factors in the pricing for services within the order. It is therefore possible as part of the standard function of Microsoft CRM to vary the price for a service with price and/or discount lists, depending on customer and/or order. It is also possible in the standard functions of Microsoft CRM to amend the price for the service product within an order.

Only the daily rate of the relevant service is important for CRM-Project. The volume of services can differ as required from order to project (e.g. more or less service sold than projected/entered).

***Note**: The same product can be used repeatedly within one order. It must be guaranteed however that identical service in one and the same order is always sold at the same daily rate. If this is not the case, CRM-Project is unable to differentiate the prices at which certain services are sold. Manual order products are ignored in the billing process.*

***Note**: We suggest to draw up all products which are billed in project management with **"Decimal Supported: 5"**, in order to avoid rounding errors in the billing.*

12.1.5 Output assignment

CRM-Project billing is based on the fact that every employee can render a service type in every entry/activity within a project.

Thus, for ascertaining which type of service has been rendered in an activity, an application logic working with 3-stage escalation is used. The lowest level yielding a result for the service to be used, is used as the primary one for billing the activity.

1st escalation level:

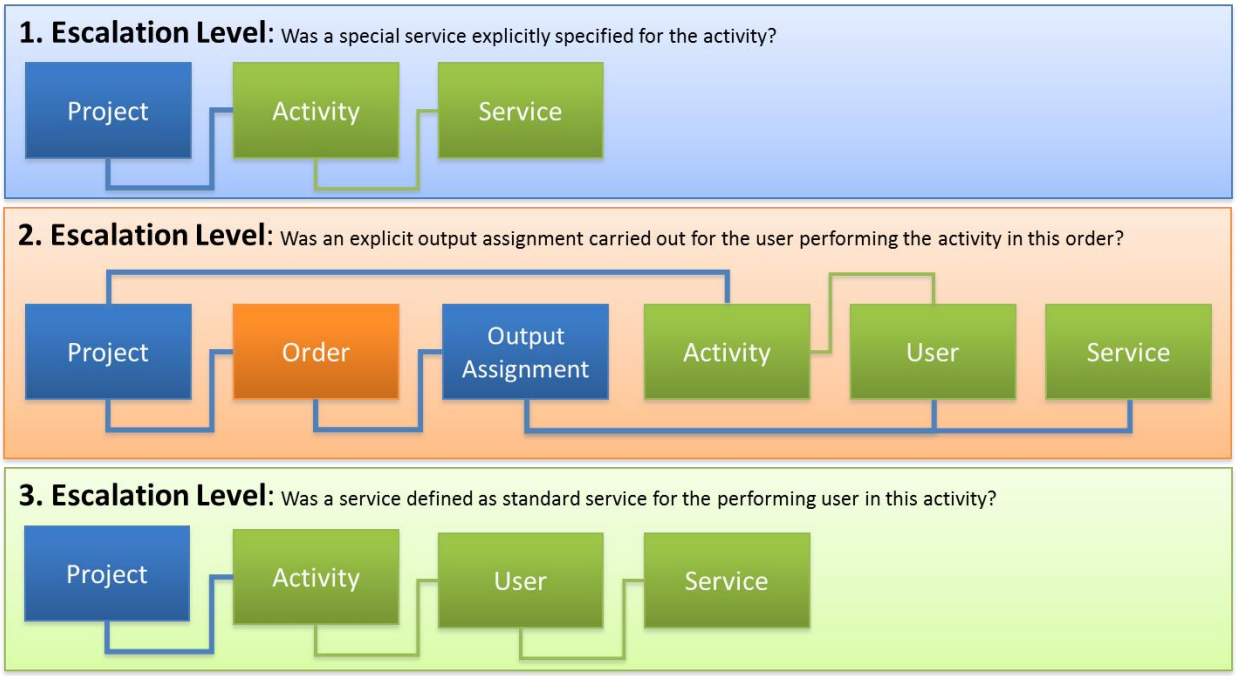
Was a special service explicitly specified for the activity (lookup service)?

2nd escalation level:

Was an explicit output assignment carried out for the user performing the activity in this order? This means the user always carries out the assigned service within this order (if nothing is specified explicitly in an activity).

3rd escalation level:

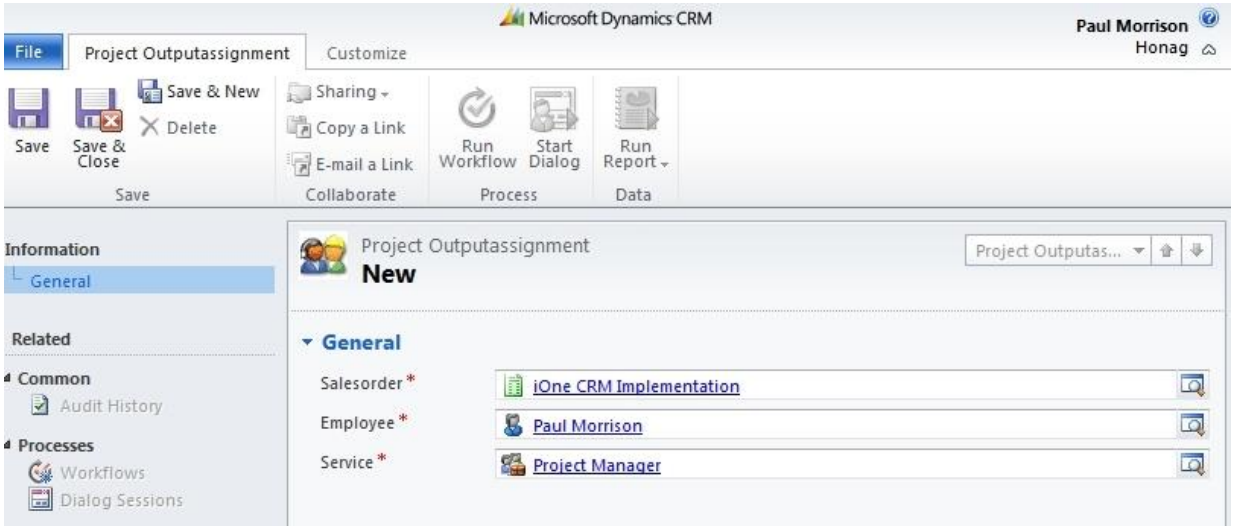
Was a service defined as the standard service for the performing user in this activity? This is used as a fallback if there is no definition in the activity or order which service the employee renders. This also requires however that the product assigned to the standard service of the user is also in the order as a product.



Services of employees are called services in the Microsoft CRM standard. CRM-Project builds upon this standard and uses also the assignment of employees to services. A connection between services and products is also required. Please refer to Section 16.2 for more information.

Required for escalation level 2 can be the maintenance of the output assignments in the order, and specification of which employee renders which service within this project. This is only necessary when:

- Your employees does not have to explicitly specify the service rendered on every entry,
- You have not stored a standard service for one or more employees in the project or,
- One or more employees in this project rendered services within the project that do not correspond to their standard service (e.g. the employee has "mover" as the standard service and only service "driver" is rendered in this order).



Summary: *For the billing process, a search is always performed firstly on a service in the activity directly - if none are found, a search is performed on an appropriate output assignment within the project for the user. If this is not found, the Standard Service field for system user Entity is checked. If this does not contain a service either, an error message informs about the lack of service assignment.*

Tip: *If no services are available in your system, create them in line with the procedure described in the standard user documentation of Microsoft CRM. Please remember the assignment required in addition between services and products (as described in section16.2).*

12.1.6 Travel settings in the order

If your order also contains travel and receipts, it is an additional requirement in the Travel Management section of the order assigned to the project to specify the procedure for dealing with travel costs and travel times in the billing process for the customer. Also, the associated products for billing travel costs and times (see Settings in section 15.1.4) must be stored as order products in the order with the relevant customer terms and conditions.

12.1.6.1 Processing of travel times

The following options can be selected for travel times:

- **No billing of travel times**: If this is selected, travel times are not included in the billing process
- **Pro-rata billing of travel times**: Here, the employee who travelled is billed based on the service carried out, and this amount is multiplied by the factor specified (% rate of the daily/hourly rate billed). Example:
- Employee: Paul Morrison
- Service: Project Management
- Order (product): project management = $1,000.00
- Work time of activity (travel time): 2 h = 0.25 MD
- Factor entered for billing: 50%
- Billed amount = $1,000.00 * 0.25 * 50% = $125.00

- **Stipulated hourly rate for all employees**: Required here in the order is the order product, stored in the basic settings as the product for billing "travel times". For this product, the daily rate (or hourly rate = daily rate / 8) can be stored for billing the customer.

Example:

- Product: Travel times = $400.00 / MD => / 8 h => $50.00 / h
- Travel time of an employee = 0.25 MD = 2 h
- Billed amount = $400.00 * 0.25 = $100.00

- **Flat-rate amount per employee and trip**: A flat-rate calculation of travel times can also be performed as an alternative. The product for billing travel times (see Basic settings) is used as the basis here too. Within the specific order, this order product is then used to enter the flat-rate amount for all travel and every employee.

Example:

- Order (product): travel times = $300.00
- In the project is a trip for which an employee requires 2 hours travel time, there and back.
- The product 'Travel Time' is billed once for this trip, for every employee
- Billed amount = 1 trip * 1 employee * $300.00 = $300.00

Note*: Receipts with flat-rate billing are denoted "Flat" in the timesheet.*

12.1.6.2 Processing of travel costs

The following options can be selected for travel costs (miles driven, receipts etc.).

- **No billing of travel costs**: Travel costs are not included in the billing process.
- **Flat-rate billing for every trip**: A flat-rate calculation of travel costs can also be performed as an alternative. The product for billing travel costs (see basic settings) is used as basis. Within the specific order, this order product is then used to enter the flat-rate amount per travel. The amount of the travel cost product is billed for every trip.
- **Billing of receipts marked by the Project Manager**: Information on the amounts to be invoiced is calculated with the billing function through the receipts marked for billing. Required within the order, for this variant, are the product for billing travel costs and the product in which the mileage allowance for this customer order is defined (see section15). For the billing process, the billing function uses the mileage rate for all receipts of type Company car, and the product for billing travel costs for billing all other travel costs. A totalized amount for all receipts is provided here. The timesheet contains details on the receipts.

***Note**: Receipts with flat-rate billing are denoted "Flat" in the timesheet.*

12.1.7 Invoicing incl. taxes

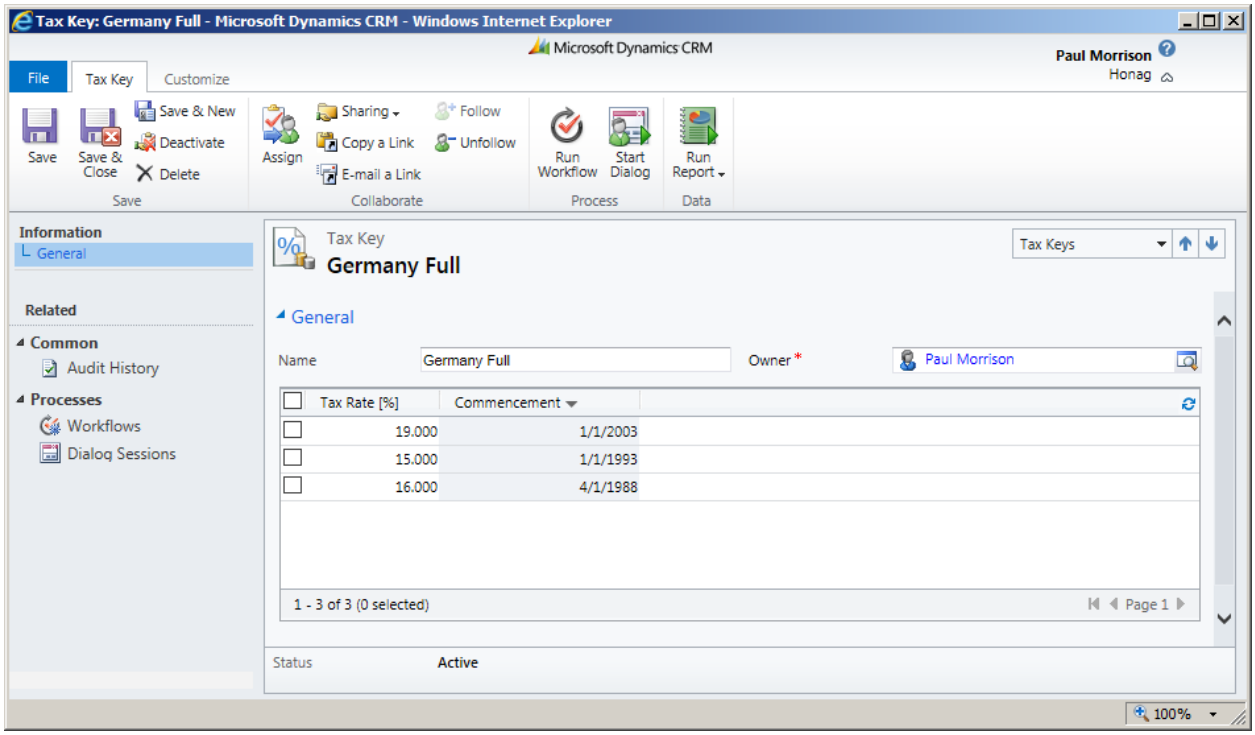
With CRM-Project, you can create invoices and calculate taxes for various countries and products.

Use the automatic tax calculator or apply tax rates manually to the invoiced products; both will produce the appropriate tax amounts on each line item and be displayed in the invoice report.

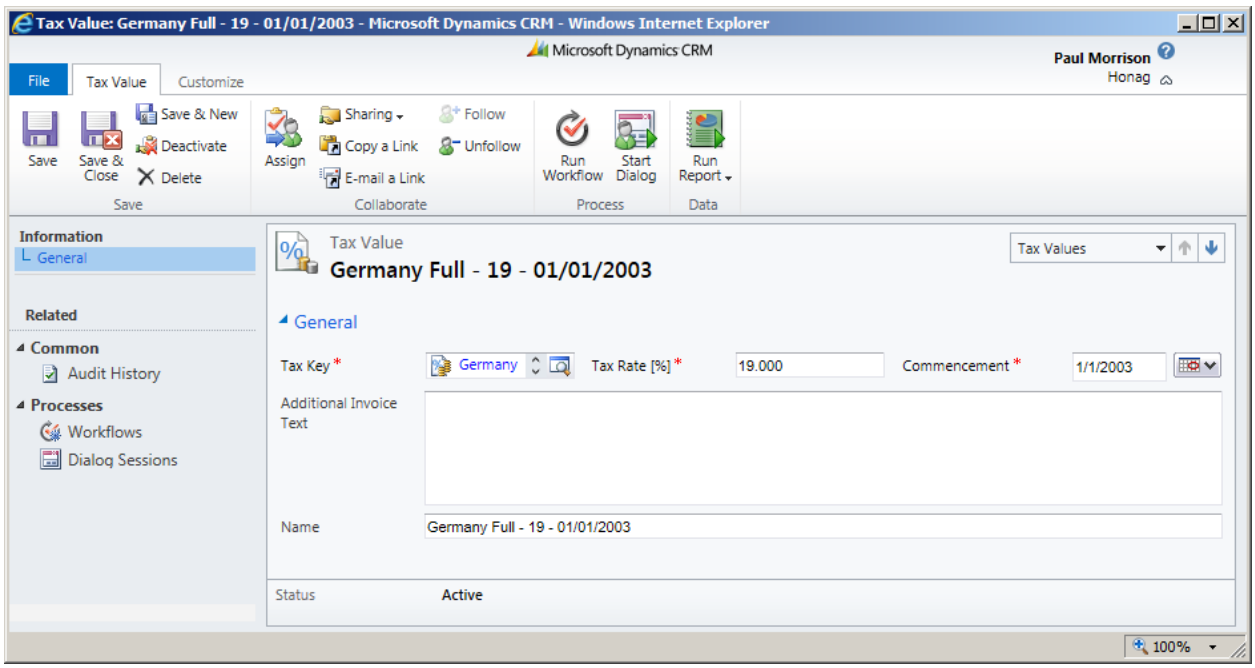
12.1.7.1 Basic configuration

Before you start, some basic configuration is required. You will find the relevant entities for tax configuration under Settings/Extensions, in the User-Entity, Product Catalogue and Accounts. Be aware that you need the appropriate security role for creating or configuring master data.

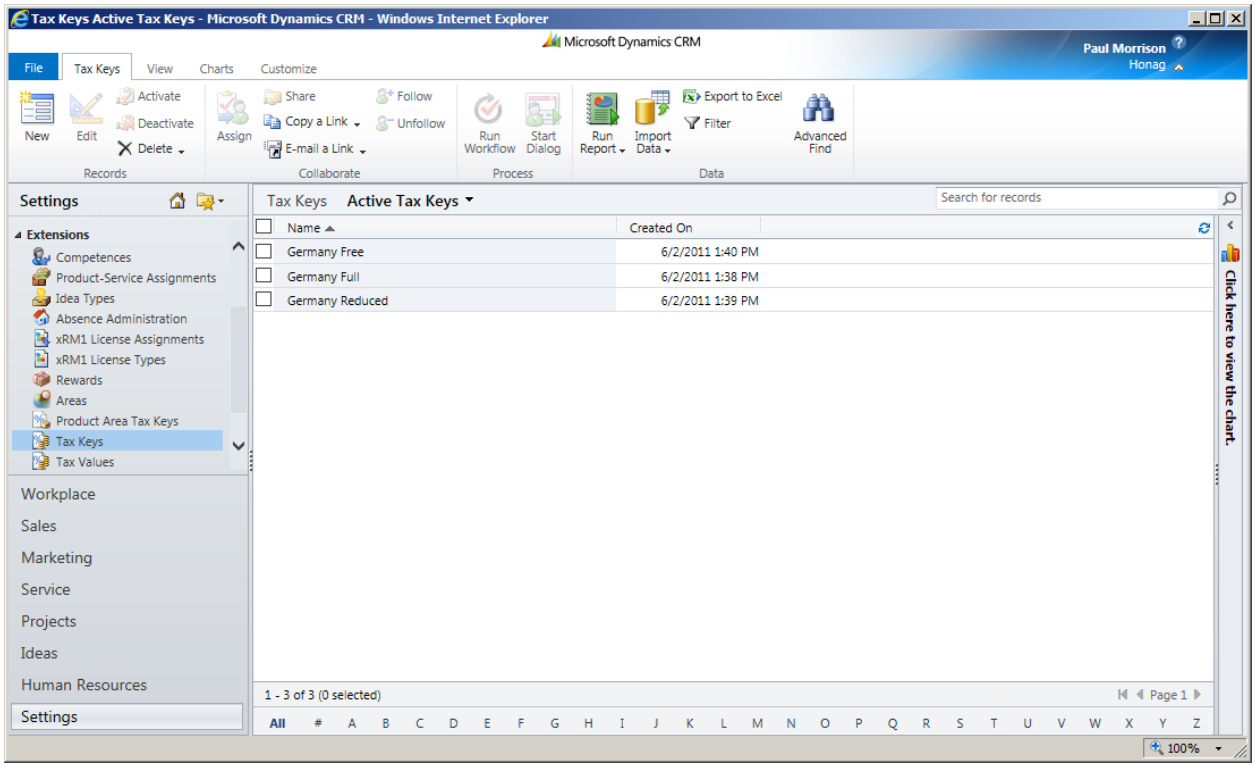
1. First, define the Tax Keys under Settings=>Extensions=>Tax Keys. The Tax Key is a generic name for a tax type, for example "Germany full", "Germany free" etc.



2. Now, create Tax Values with the relevant Tax Rates (e.g. 7%, 19%, 0%) and assign them to applicable Tax Keys. Add a date from which this key is valid from ("Commencement"). Repeat this step for all relevant Tax Keys and Tax Rates. In addition, a short "Additional Invoice Text" can be added to the Tax Value. This text will then appear on the printed invoice.

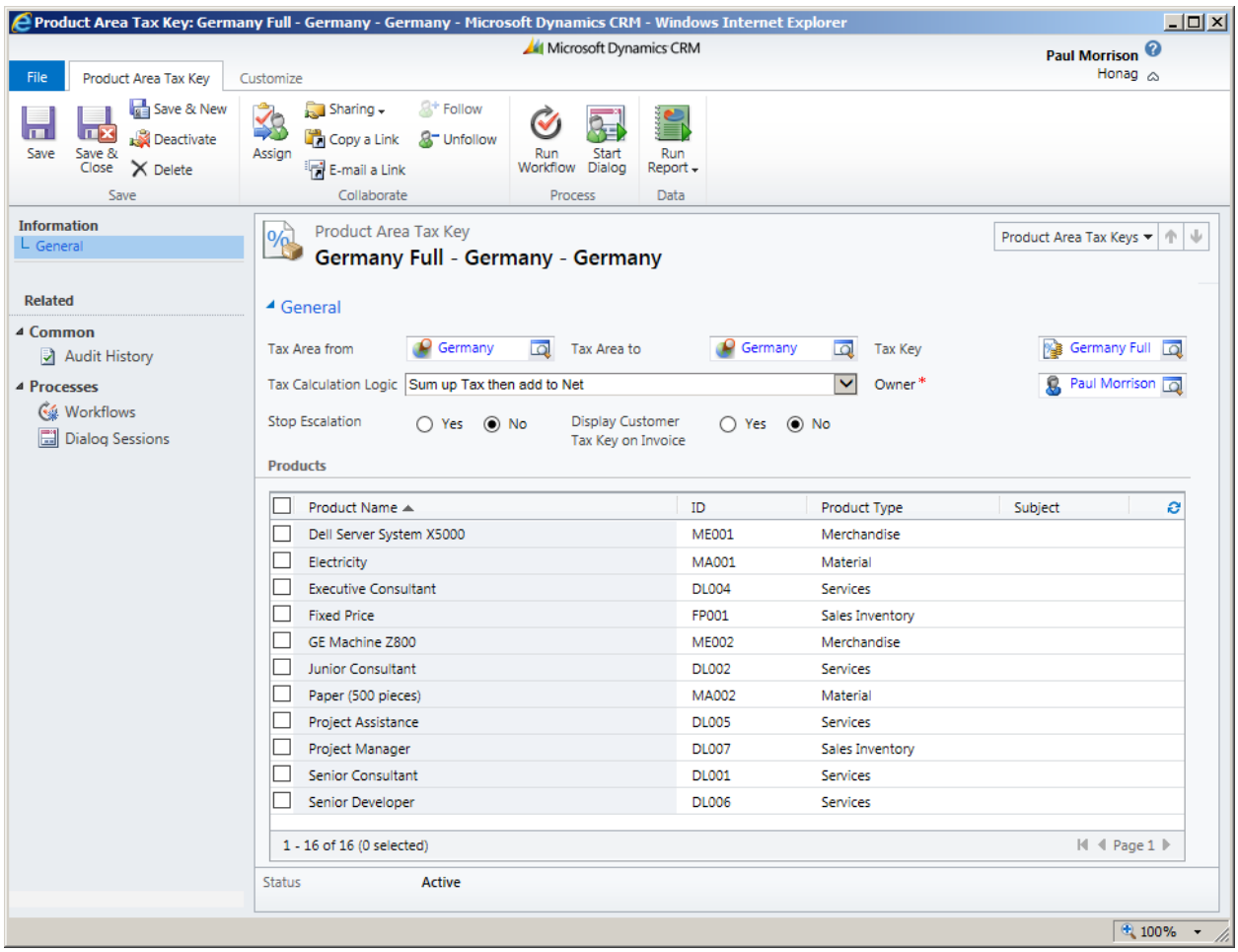


Note: *Tax data (for Germany) can be automatically created through the xRM1 wizards. This base data will add the required tax keys for full, reduced and free tax rates.*



3. Create Product Area Tax Keys for relevant Areas and combinations, and add the corresponding products to the Product-Grid. Every time you create an invoice with the configured combination of the tax areas and products, the system will find the right Tax Rate automatically, based on the saved data.

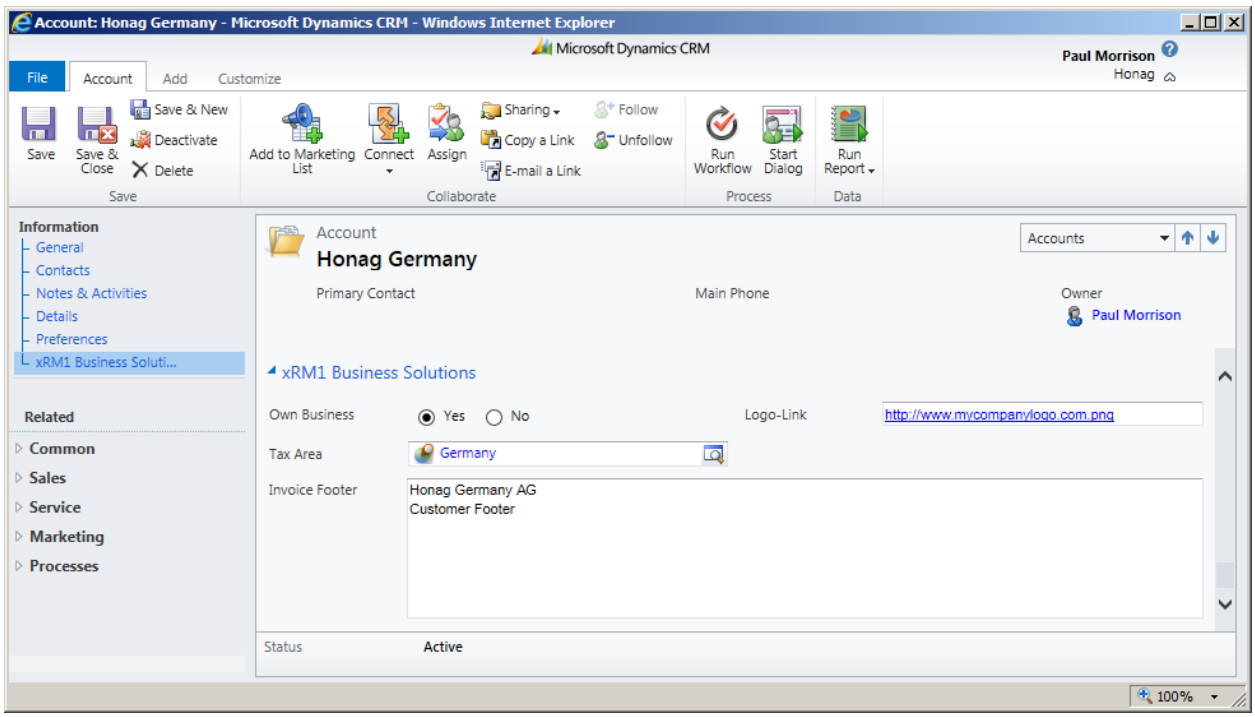
Note: *You can create the areas either manually or use the provided import package. For more information about areas, see section 14.1*

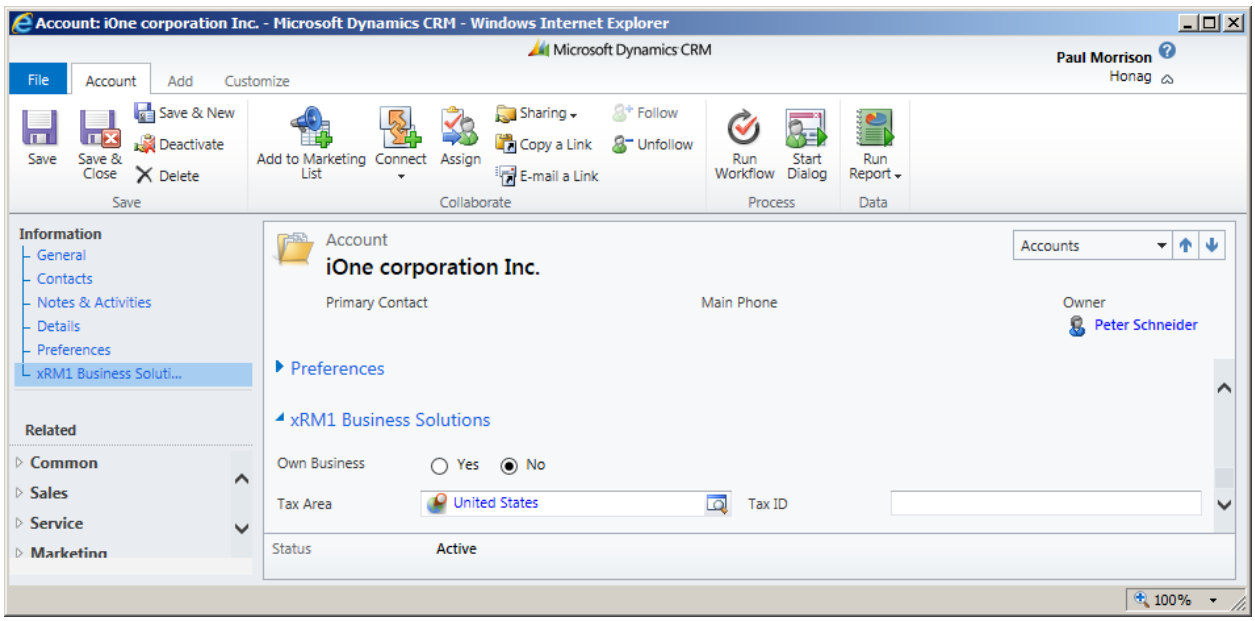


The „Stop Escalation" button stops the search for the Tax Rates and Additional Invoice Texts for the area tree's upper level. For Example, it will prevent the European Additional Invoice Text from being displayed on a Germany-Germany invoice. On the other hand, if the escalation is activated, the Tax Rates will beadded up for the existing area levels.

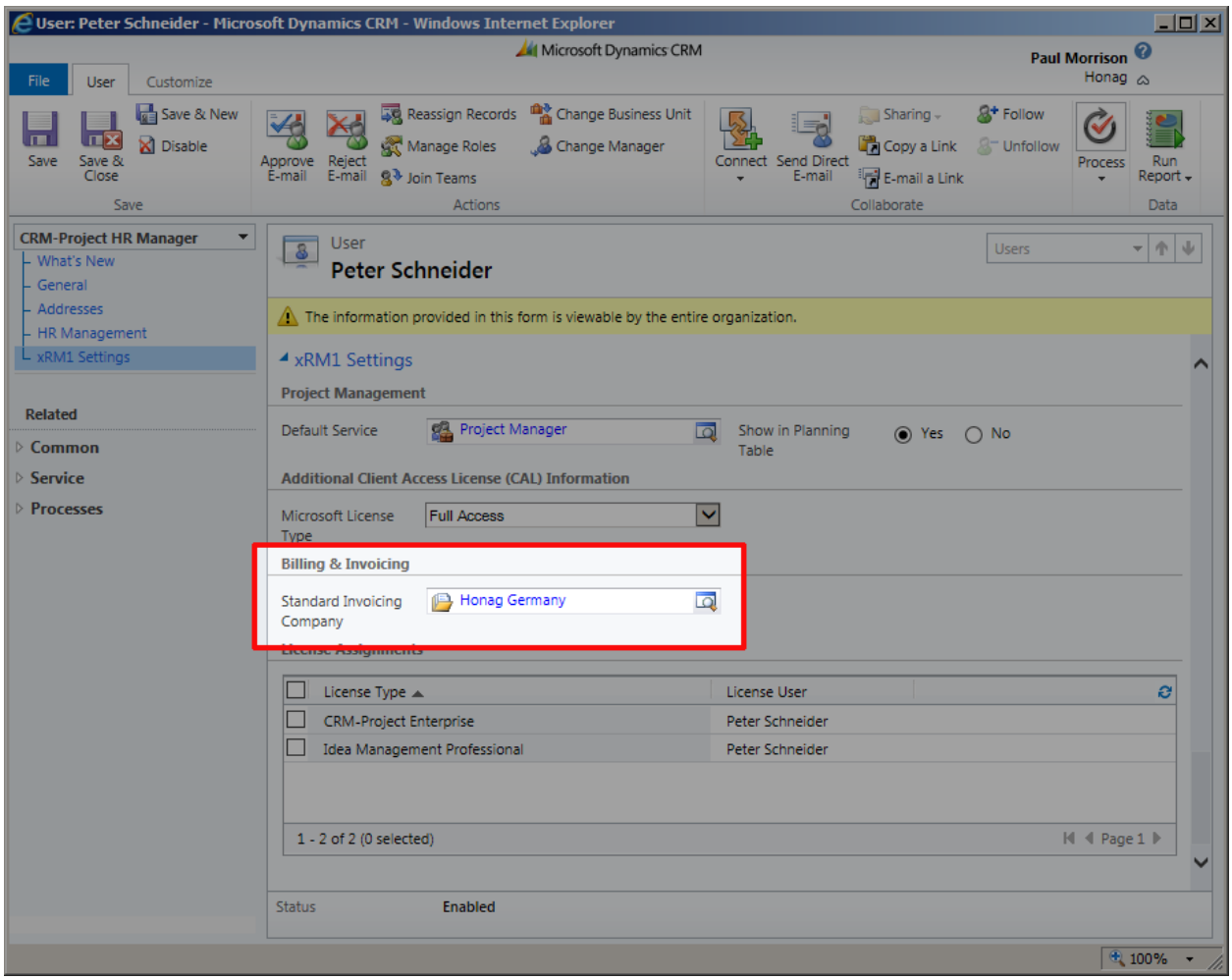
The "Tax Calculation Logic" pick list, which defines the tax calculator, has the following entries below. This will be continuously extended in future product versions.

4. Add the corresponding Tax Area to the account's records. For the accounts within your organization (the option "Own Business" is set to "yes"), a logo and an Invoice Footer; for external companies (the option "Own Business" is set to "no") the Tax ID can be added. Entered data will then appear on the printed invoice.





5. Add the "Standard Invoicing Company" to the user records. This company will be selected automatically when the relevant user creates an invoice.

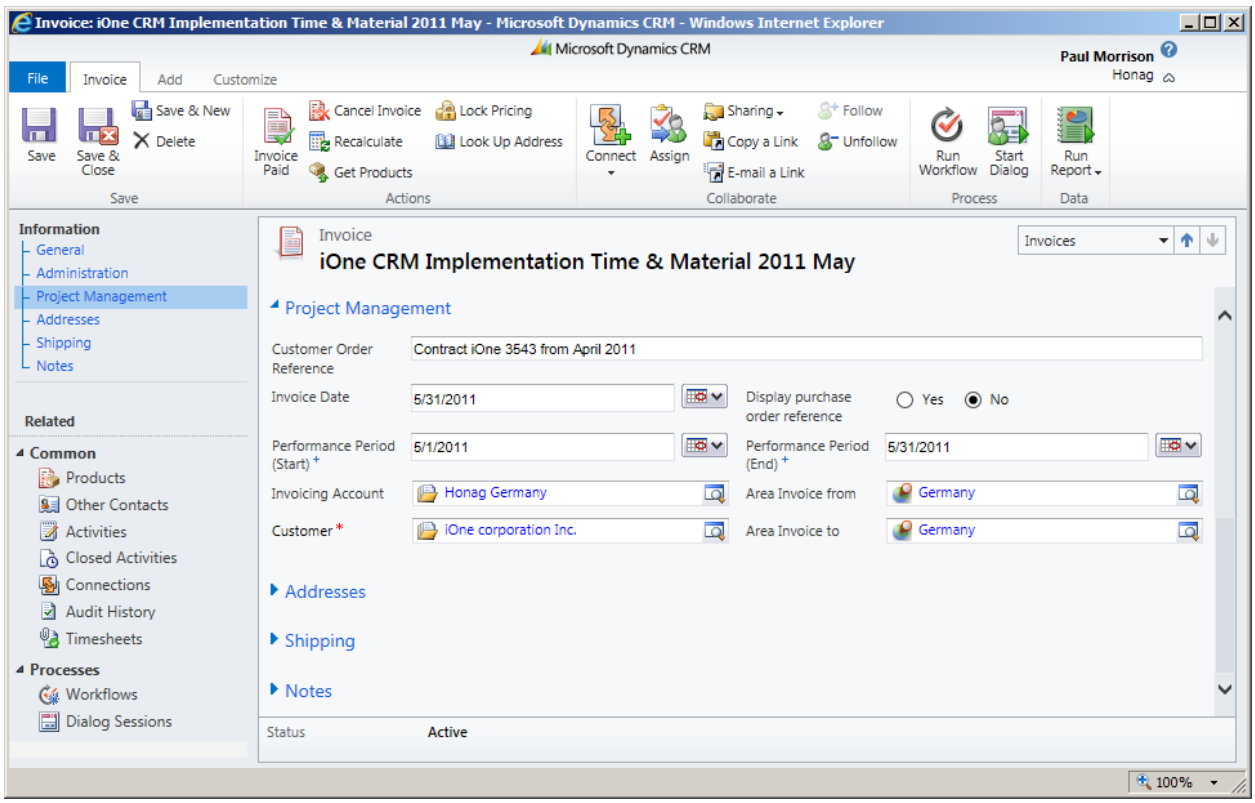


12.1.7.2 Creating an invoice incl. taxes

If all required base data has been created, as described above (see section 12.1.7.1), the corresponding data and tax calculation for the invoice will be determined and done almost automatically.

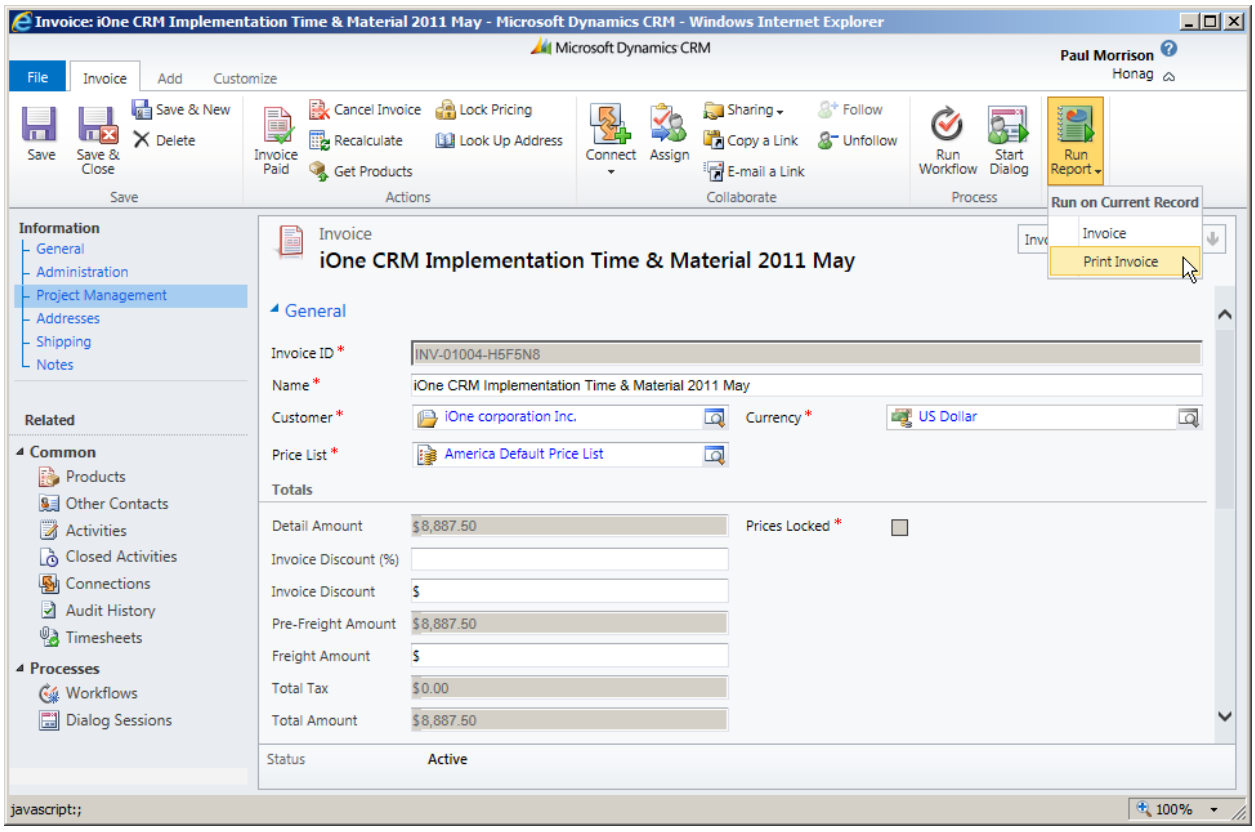
You can create an invoice from scratch, from an order or by using the CRM-Project Billing functionality.

When creating an invoice from scratch, ensure that you have added the Invoice Products and the account. When creating an invoice out of an order or project, this data will be inherited and filled out.

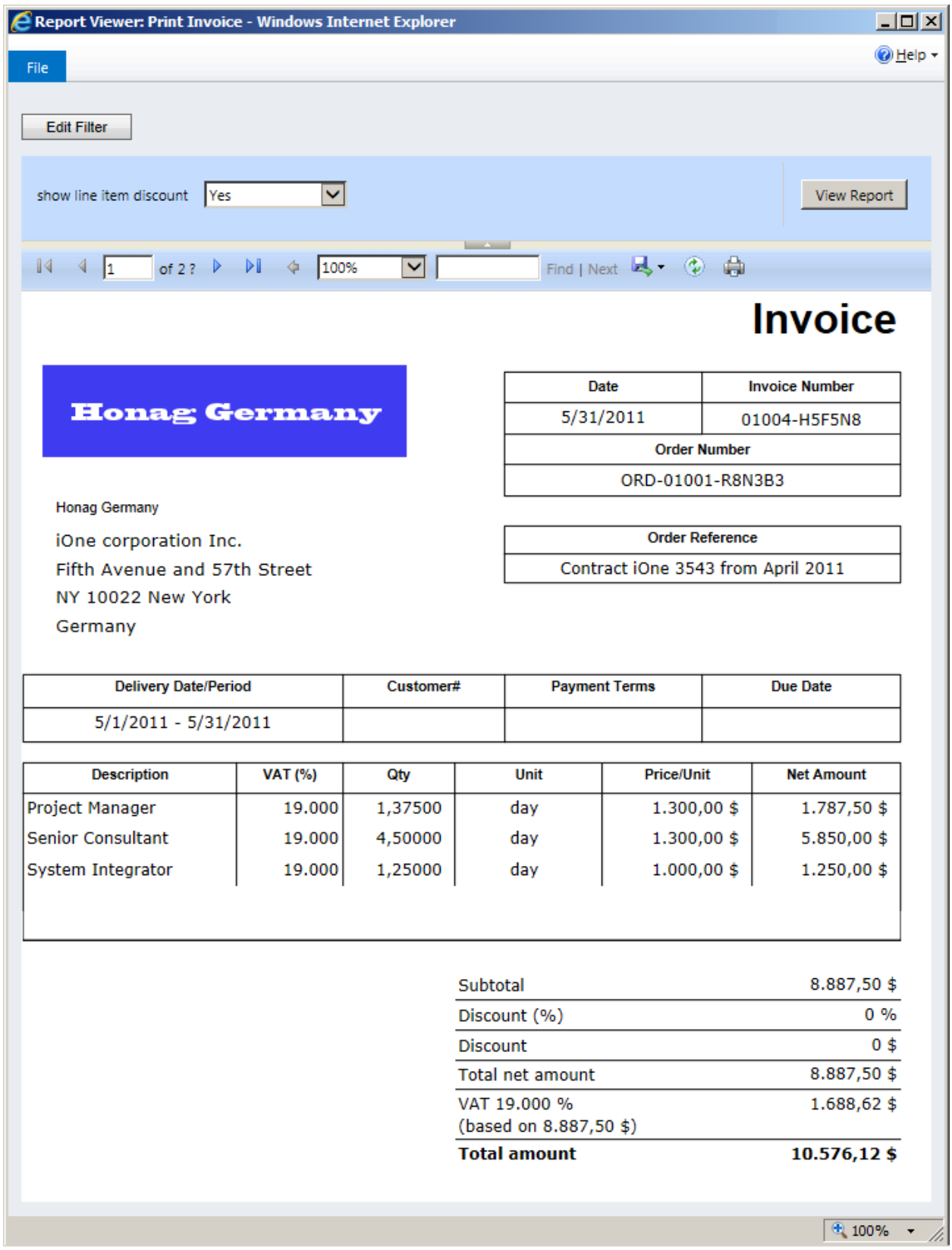


12.1.7.3 Printing invoice including taxes

For creating an invoice report, go to "Run Report" and then to "Print Invoice" on the Ribbon Bar.

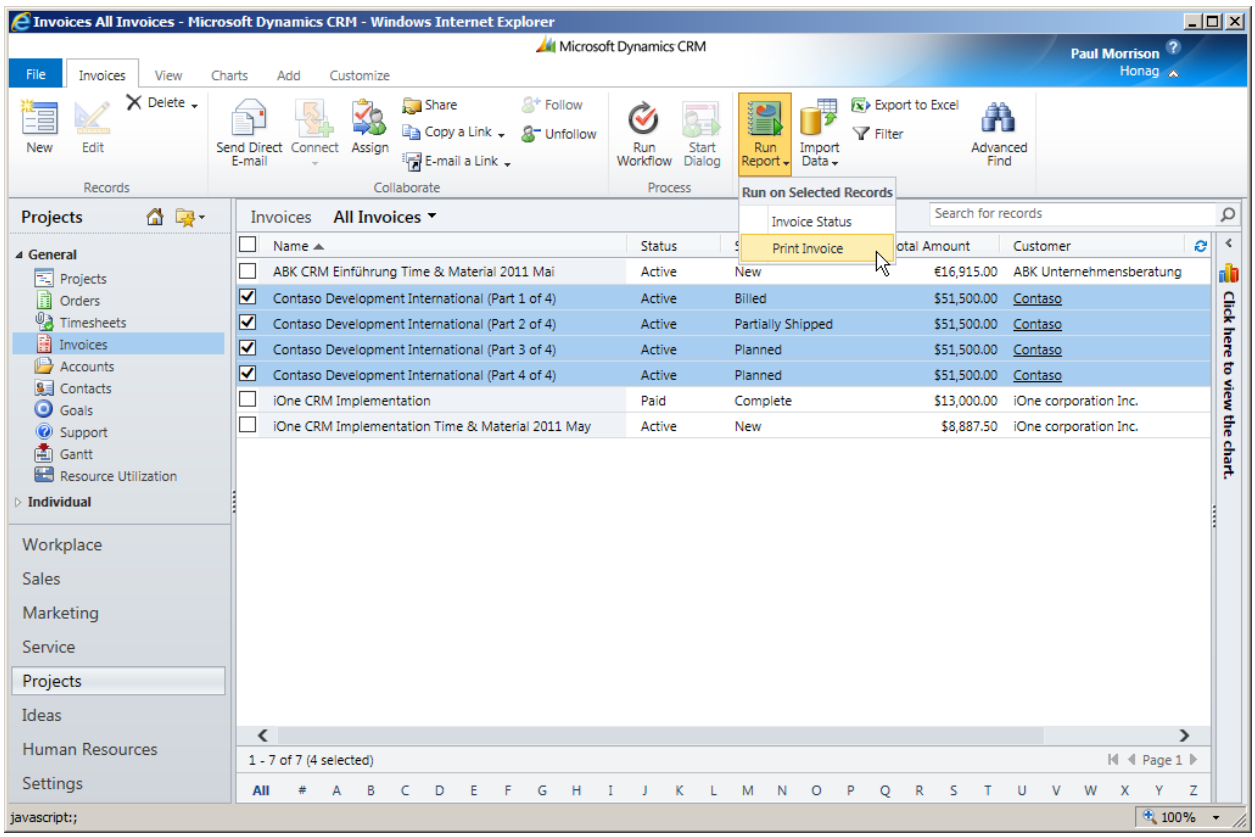


Now the invoice can be printed out, stored locally and/or sent to the customer.



12.1.7.4 Multiple invoice printing

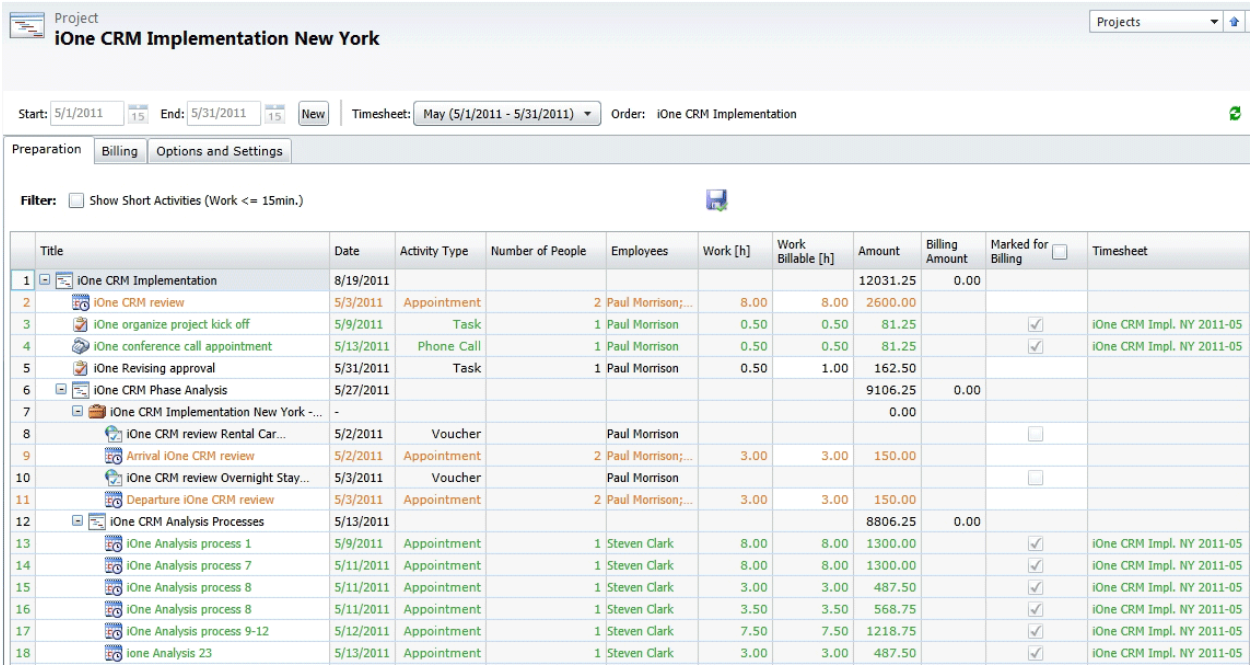
If required, you can create more than one invoice report at once. Select the relevant invoices in the view for active invoices and then go to "Print Invoice" on the Ribbon Bar.



12.2 Running the billing process

Menu option **Billing** contains all the functions required for running a billing process for the customer. These options are:

- Preparation of the billing process
- Creation of the timesheet, including export options
- Running the billing process and creating the invoice


Project
iOne CRM Implementation New York
Projects
Start: 5/1/2011
End: 5/31/2011
New
Timesheet: May (5/1/2011 - 5/31/2011)
Order: iOne CRM Implementation
Preparation
Billing
Options and Settings
Filter: Show Short Activities (Work <= 15min.)
Title
Date
Activity Type
Number of People
Employees
Work [h]
Work Billable [h]
Amount
Billing Amount
Marked for Billing
Timesheet
1 iOne CRM Implementation 8/19/2011 12031.25 0.00
2 iOne CRM review 5/3/2011 Appointment 2 Paul Morrison;... 8.00 8.00 2600.00
3 iOne organize project kick off 5/9/2011 Task 1 Paul Morrison 0.50 0.50 81.25 iOne CRM Impl. NY 2011-05
4 iOne conference call appointment 5/13/2011 Phone Call 1 Paul Morrison 0.50 0.50 81.25 iOne CRM Impl. NY 2011-05
5 iOne Revising approval 5/31/2011 Task 1 Paul Morrison 0.50 1.00 162.50
6 iOne CRM Phase Analysis 5/27/2011 9106.25 0.00
7 iOne CRM Implementation New York -... - 0.00
8 iOne CRM review Rental Car... 5/2/2011 Voucher Paul Morrison
9 Arrival iOne CRM review 5/2/2011 Appointment 2 Paul Morrison;... 3.00 3.00 150.00
10 iOne CRM review Overnight Stay... 5/3/2011 Voucher Paul Morrison
11 Departure iOne CRM review 5/3/2011 Appointment 2 Paul Morrison;... 3.00 3.00 150.00
12 iOne CRM Analysis Processes 5/13/2011 8806.25 0.00
13 iOne Analysis process 1 5/9/2011 Appointment 1 Steven Clark 8.00 8.00 1300.00 iOne CRM Impl. NY 2011-05
14 iOne Analysis process 7 5/11/2011 Appointment 1 Steven Clark 8.00 8.00 1300.00 iOne CRM Impl. NY 2011-05
15 iOne Analysis process 8 5/11/2011 Appointment 1 Steven Clark 3.00 3.00 487.50 iOne CRM Impl. NY 2011-05
16 iOne Analysis process 8 5/11/2011 Appointment 1 Steven Clark 3.50 3.50 568.75 iOne CRM Impl. NY 2011-05
17 iOne Analysis process 9-12 5/12/2011 Appointment 1 Steven Clark 7.50 7.50 1218.75 iOne CRM Impl. NY 2011-05
18 ione Analysis 23 5/13/2011 Appointment 1 Steven Clark 3.00 3.00 487.50 iOne CRM Impl. NY 2011-05

The header of the billing area provides the option of selecting the time period for the billing process (via the start and end dates). Clicking the Refresh button re-loads the records for this period.

To bill projects, more information than is available in the project itself is required. The most important information (unknown in the project itself) is made up of the daily rates used to invoice customers for the services of project team members.

CRM-Project accesses the standard information of Microsoft CRM, the order, for missing information. The order assigned to the project contains virtually all of the information required for billing. Only a few pieces of information need be added inside the billing process.

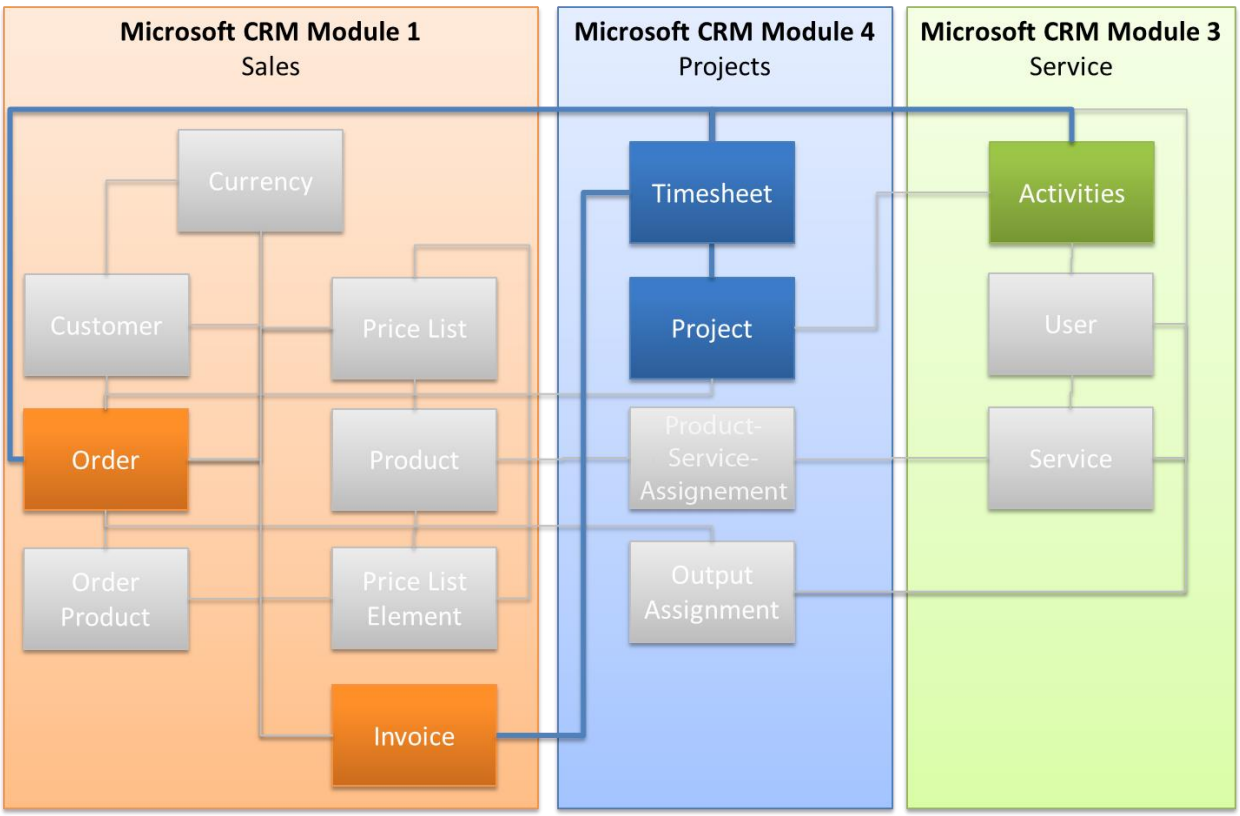
12.2.1 General billing process

When the billing process is run, the billing function of CRM-Project creates a timesheet. This timesheet, with information

- which project
- is billed to the customer with which order
- within which time period
- using which invoice

is stored in Microsoft CRM. All the elements (activities, travel, receipts) invoiced within this timesheet are linked to the timesheet. Also, CRM-Project saves in every invoiced element (activity, travel, receipt) the amount invoiced to the customer.

This means a historic timesheet with the correct, invoiced values can be accessed at any time, even after price adjustments for the customer. The information is also available for analyses with dashboards and reports.



Note: *The full scope of the billing function of CRM-Project is only available to users in online mode. Projects can be created and entered offline and online. Preparation for billing, creation of the timesheet, and the billing function are only available with a connection to the CRM server. The executing user also requires the security role "CRM-Project Project Manager".*

12.2.2 Billing preparation

The first step in billing is the **Preparation** tab.

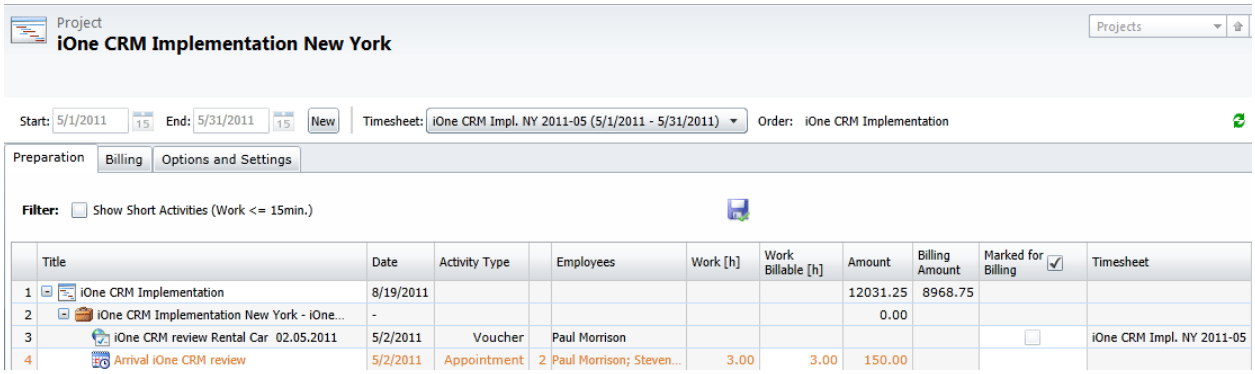
12.2.2.1 Purpose

The Preparation tab contains all activities, travel and receipts within the selected time period, thus offering the Project Manager the option to decide

- which records are listed in the billing,
- to still correct or adapt the description of the service if required and/or,
- to change the billable time.

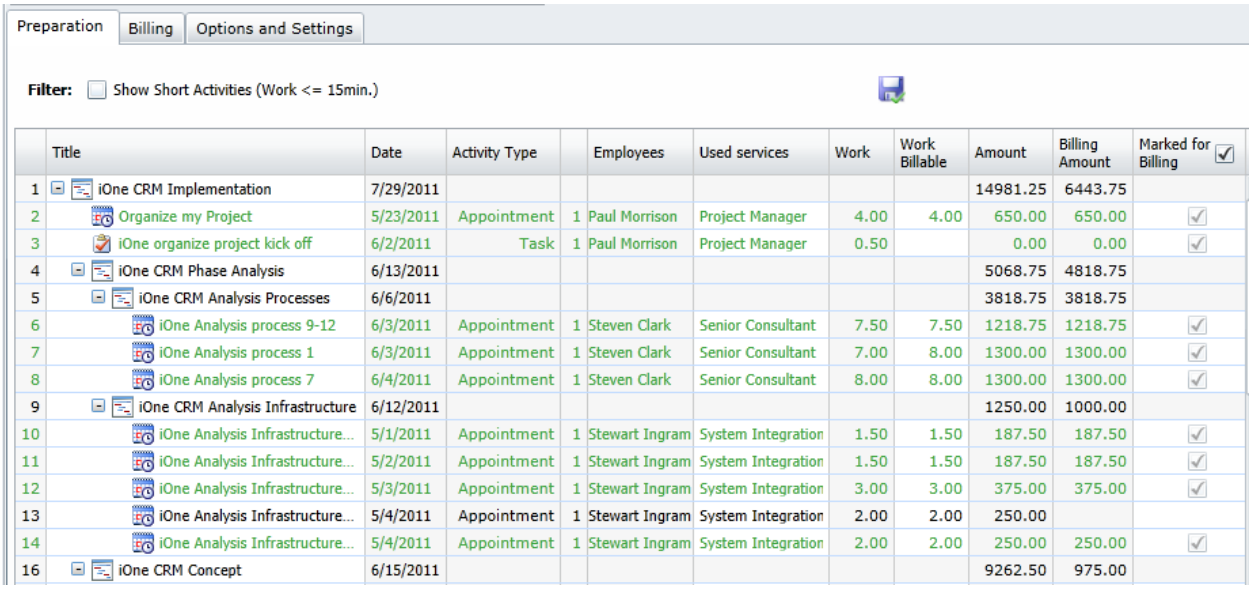
All of these settings can be configured immediately within the overview by the Project Manager and then be updated by clicking.

12.2.2.2 Structure of the function



- **Start date and End date**: Selection of the time period in which billing is to take place (is assigned the time period specified there on loading a timesheet.
- **New**: Is used to create a new timesheet. The function is not available if no order is assigned to the project.
- **Load Timesheet**: The pick list enables all timesheets created so far for the project node currently open to be selected.
- **Related Order**: Displays, after selection of a timesheet, the order to which the timesheet is assigned.
- **Refresh button**: Refreshes all entries in the lower area in line with the time period selected.
- **Diskette symbol**: Saves modified values in the lower area in Microsoft CRM.
- **Show Short Activities filter**: Filters all the activities in the list shown below that have a value of 15 minutes or less as billable work time. Filtering works the following way:
  - All activities having an entered work time between 0 and 15 minutes are hidden. The work time entered pertains in this context to the work in the relevant activity multiplied by the number of participants. A 15 minute meeting with 2 participants has an entered work time (total) of 30 minutes and so continues to be displayed.
  - E-mails are also hidden if the work time in the e-mail activity is not defined (so NULL). This is often the case for incoming e-mails.
  - All other activity types for which the work time is not defined (so is NULL) continue to be displayed to enable the Project Manager to carry out any controlling activities and any necessary corrections over all available project entries.

Tip: *The experience of our customers and our own work in customer projects have shown that it is sensible for the majority of customers not to invoice for the smallest of activities. E-mails in particular generally have a processing time of 5-10 minutes and so fall into the category of short activities – just like short phone conversions lasting a maximum of 15 minutes. In billing preparation, the Show Short Activities filter enables you as Project Manager to hide the less relevant project entries to concentrate on the major entries. If you want to view all the entries nevertheless, one click is enough to view all the information.*



	Title	Date	Activity Type		Employees	Used services	Work	Work Billable	Amount	Billing Amount	Marked for Billing
1	iOne CRM Implementation	7/29/2011							14981.25	6443.75	
2	Organize my Project	5/23/2011	Appointment	1	Paul Morrison	Project Manager	4.00	4.00	650.00	650.00	☑
3	iOne organize project kick off	6/2/2011	Task	1	Paul Morrison	Project Manager	0.50		0.00	0.00	☑
4	iOne CRM Phase Analysis	6/13/2011							5068.75	4818.75	
5	iOne CRM Analysis Processes	6/6/2011							3818.75	3818.75	
6	iOne Analysis process 9-12	6/3/2011	Appointment	1	Steven Clark	Senior Consultant	7.50	7.50	1218.75	1218.75	☑
7	iOne Analysis process 1	6/3/2011	Appointment	1	Steven Clark	Senior Consultant	7.00	8.00	1300.00	1300.00	☑
8	iOne Analysis process 7	6/4/2011	Appointment	1	Steven Clark	Senior Consultant	8.00	8.00	1300.00	1300.00	☑
9	iOne CRM Analysis Infrastructure	6/12/2011							1250.00	1000.00	
10	iOne Analysis Infrastructure...	5/1/2011	Appointment	1	Stewart Ingram	System Integration	1.50	1.50	187.50	187.50	☑
11	iOne Analysis Infrastructure...	5/2/2011	Appointment	1	Stewart Ingram	System Integration	1.50	1.50	187.50	187.50	☑
12	iOne Analysis Infrastructure...	5/3/2011	Appointment	1	Stewart Ingram	System Integration	3.00	3.00	375.00	375.00	☑
13	iOne Analysis Infrastructure...	5/4/2011	Appointment	1	Stewart Ingram	System Integration	2.00	2.00	250.00		
14	iOne Analysis Infrastructure...	5/4/2011	Appointment	1	Stewart Ingram	System Integration	2.00	2.00	250.00	250.00	☑
16	iOne CRM Concept	6/15/2011							9262.50	975.00	

The **Title** column shows the title of the relevant project node or, for activities, the description of the activity carried out. The state of records is denoted as follows by a colored flag for quicker processing:

- Processing: black
- Planning: orange
- Completed: green
- Interrupted/cancelled: grey

The list is based on the project structure. In a project node, sorting of activities is in ascending order by column **Date**.

Column **Activity Type** specifies which type of activity the project entry is.

Column **Number of People** displays how many participants are entered in that activity. For appointments and service activities, this number can be 1 or more. If the participation count of an entry is 0, it is generally because a project member has entered an appointment for him/herself and has forgotten to save him/herself as a participant/resource for the appointment.

Employees: Find the names of the employees who have worked on the respective activity here.

Used Services: Services which will be rendered through scheduling the activity are displayed in this column (more on this under Output Assignment, Section12.1.5). It's possible to readjust the services directly through the fields: available services can be edited and missing ones added.

The **Work [h]** column specifies the work time entered for the relevant activity. This work time is the value (in hours) specified in the activity by the editor, regardless of how many participants are involved. For a one-hour task, 1.00 is displayed here; just like a one-hour appointment with many participants.

The **Work Billable [h]** column offers the Project Manager the chance to modify the work time of the relevant activity. This value is generally already pre-assigned the value from column Work [h]. Only the value of the Work Billable [h] column is used in the timesheet for billing. If this column remains empty, the customer is billed nothing for this activity.

The **Amount** column gives the Project Manager, on the basis of the services sold to the customer in the order, a preview of the amount generated through billing.

The **Marked for Billing** column gives the Project Manager the opportunity to select the activities to be marked for billing. This credits the activity to the timesheet currently selected. Also, the **Timesheet** column displays the timesheet to which the position is assigned.

The **Billing Amount** column displays and totals the positions resulting from the elements selected by the Project Manager for billing. This means there can be specific selection during preparation in order to bill (or not) certain amounts.

***Tip**: You must first select a timesheet to be able to display columns Amount, Work Billable and Marked for Billing. Please refer to Section 12.2.2.4 for more information.*

12.2.2.3 Billing types in the Preparation window

CRM-Project allows the creation of different billing methods for individual project nodes:

- Billing by fixed price
- Billing by time & material
- Billing by fixed price and by time & material
- No billing

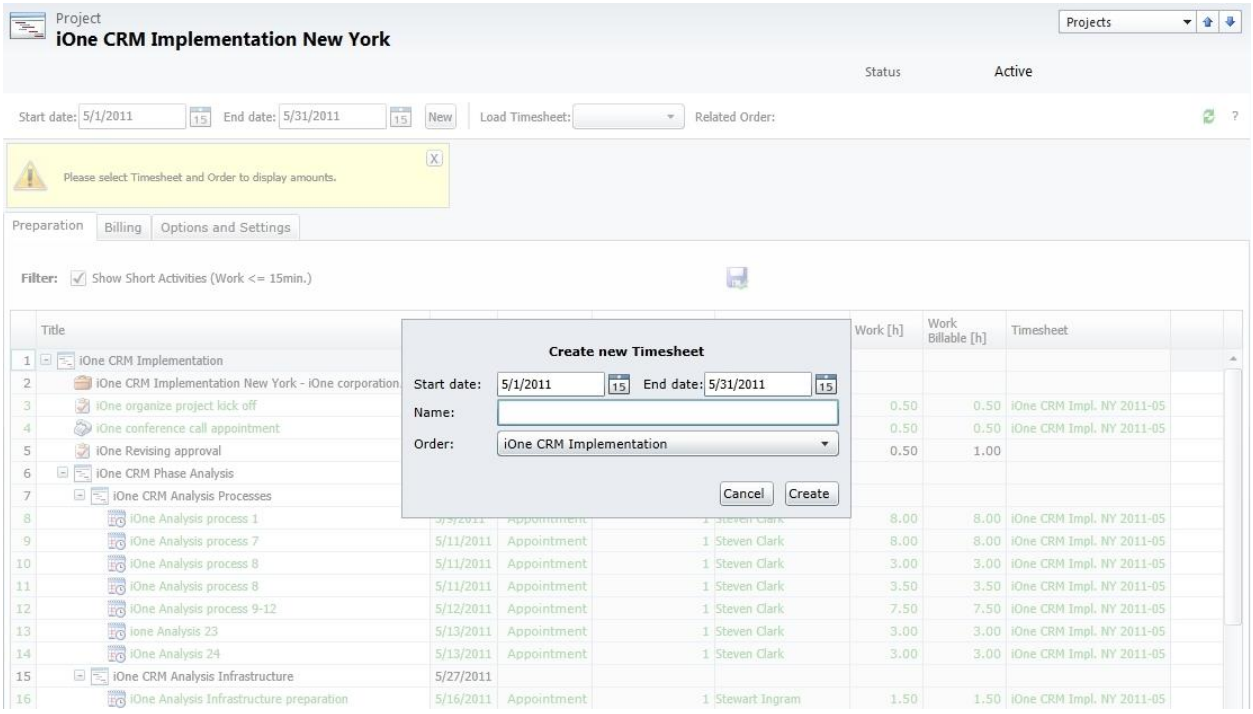
Project nodes to be billed by fixed price or not at all are displayed in billing preparation but are not included. Relevant project nodes and activities are shown with a gray background.

***Tip**: Variant "Fixed price and time & material" is handled the same way as time & material. It is used to classify a project node, under which are other project nodes, which are calculated mixed, i.e. partially with fixed price and partially by time & material.*

12.2.2.4 Select Timesheet or Create New

After billing is accessed, the Preparation window prompts for the timesheet to be selected. If you have already created timesheets, or would like to continue with the processing of a timesheet, select the relevant timesheet with pick list "Load Timesheet".

If you have yet to create a timesheet for the project, or would like to bill a new time period, select "New". A dialog then asks for the time period in which the timesheet is created. The time period is pre-assigned that of the previous mask. Note: The time period of the timesheet cannot be changed afterwards. You also have the option of assigning a name for the timesheet. Lastly, it is necessary to define the order basis to be used for billing the timesheet. If only a single order is assigned for the project, it is pre-assigned immediately. If more than one order is in the project tree, they are listed for selection in the pick list.



Once you have selected a timesheet, the full functionality of the preparation functions is available.

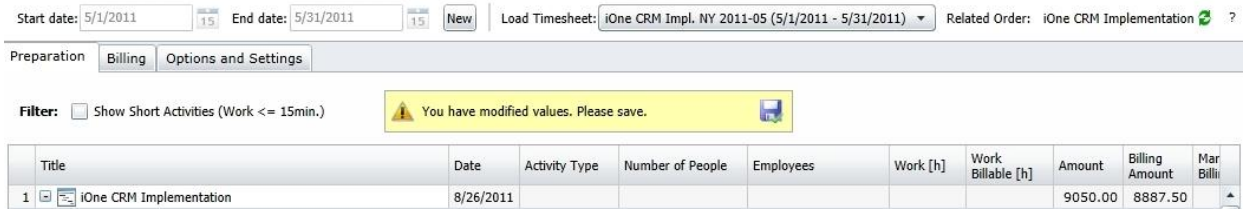
12.2.2.5 Working with the Preparation function

Within the project nodes and services listed, you can use control keys Left, Right, Top, and Bottom on the keyboard to speed up your work. All cells shown with a white background provide an editing function.

- **Title**: Modification of the description of the project node or the service
- **Work Billable [h]**: Change in the volume of work to be billed
- **Marked for Billing**: Adding or removal of the position from billing in this timesheet.

	Title	Date	Activity Type	Number of People	Employees	Work [h]	Work Billable [h]	Amount	Billing Amount	Marked for Billing
1	iOne CRM Implementation	8/26/2011						9050.00	8887.50	
2	iOne organize project kick off	5/9/2011	Task	1	Paul Morrison	0.50	0.50	81.25	81.25	☑
3	iOne conference call appointment	5/13/2011	Phone Call	1	Paul Morrison	0.50	0.50	81.25	81.25	☑
4	iOne Revising approval	5/31/2011	Task	1	Paul Morrison	0.50	1.00	162.50		
5	iOne CRM Phase Analysis	5/27/2011						7100.00	7100.00	
6	iOne CRM Analysis Processes	5/13/2011						5850.00	5850.00	
7	iOne Analysis process 1	5/9/2011	Appointment	1	Steven Clark	8.00	8.00	1300.00	1300.00	☑
8	iOne Analysis process 7	5/11/2011	Appointment	1	Steven Clark	8.00	8.00	1300.00	1300.00	☑
9	iOne Analysis process 8	5/11/2011	Appointment	1	Steven Clark	3.00	3.00	487.50	487.50	☑
10	iOne Analysis process 8	5/11/2011	Appointment	1	Steven Clark	3.50	3.50	568.75	568.75	☑
11	iOne Analysis process 9-12	5/12/2011	Appointment	1	Steven Clark	7.50	7.50	1218.75	1218.75	☑

Important: No changes in the Preparation overview are saved automatically. As soon as you make the first change, a reminder is shown that saving the changes made is required.


Start date: 5/1/2011
End date: 5/31/2011
New
Load Timesheet: iOne CRM Impl. NY 2011-05 (5/1/2011 - 5/31/2011)
Related Order: iOne CRM Implementation
Preparation
Billing
Options and Settings
Filter: Show Short Activities (Work <= 15min.)
You have modified values. Please save.

	Title	Date	Activity Type	Number of People	Employees	Work [h]	Work Billable [h]	Amount	Billing Amount	Mar Billi
1	iOne CRM Implementation	8/26/2011						9050.00	8887.50	

***Note**: If no title is shown for some or all project nodes, please check whether the "Customer Title" field is filled for the project nodes in question. The billing function does not use the internal project title for billing the project nodes and instead uses the potentially different names for the customer.*

***Tip**: The button in the **"Marked for Billing"** column header adds all available positions of the time period listed in the selected project to the timesheet.*

On row level, positions can be selected and deselected for billing very quickly by using the space-bar in the "Marked for Billing" column.

***Tip:** If you cannot bill the customer for the entire amount, use the **"Work Billable [h]"** column to reduce the value. You can even set billable work to 0 to give the customer "something for free". In the report for the printout of the timesheet, you can select whether you want to show a bold comparison **(work rendered, work invoiced)**.*

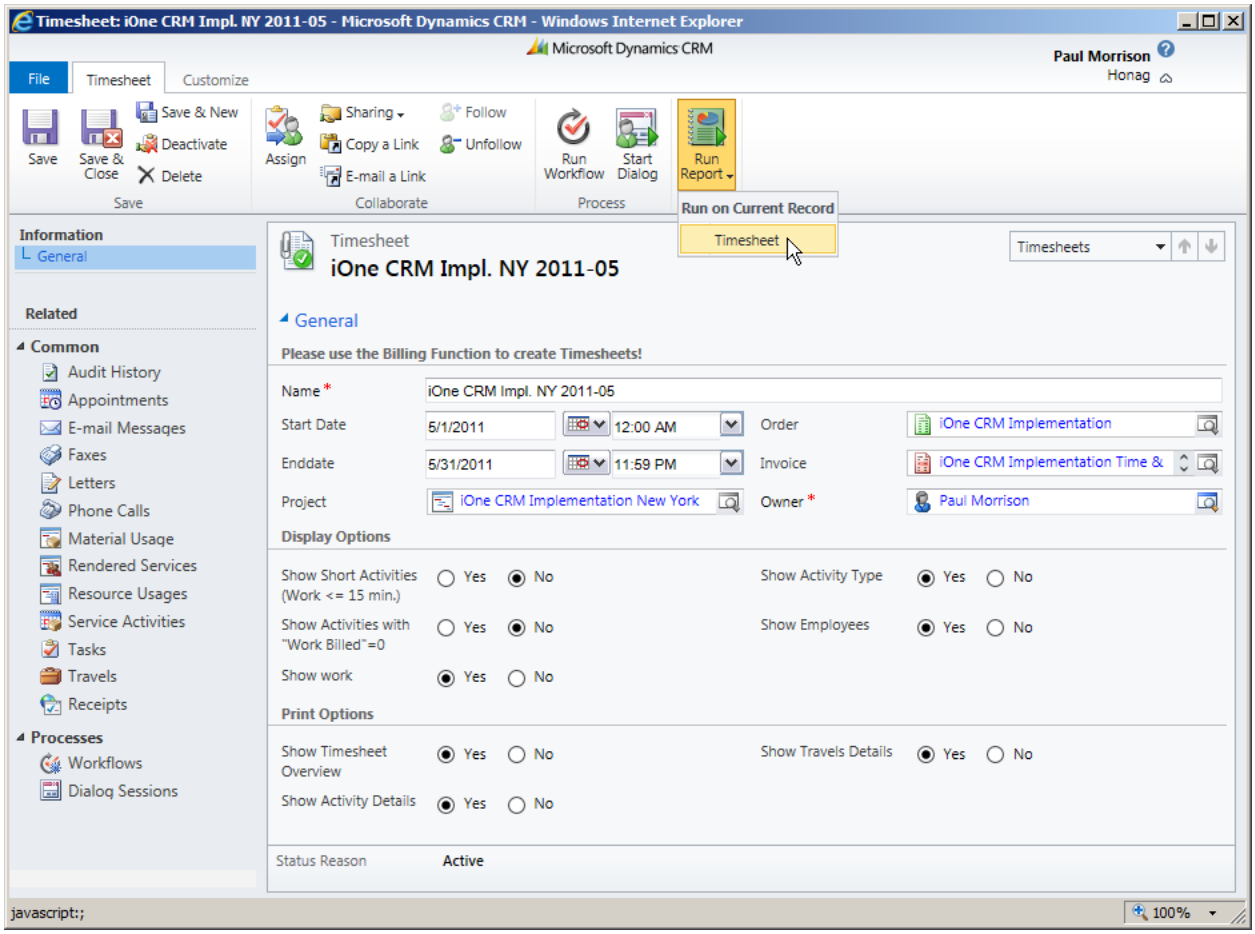
Or increase the billable work if your employees are quicker than planned or if there is additional cost in the project due to different circumstances (e.g. night work). Here too you have the option in the printed timesheet to show your customer the difference or not.

12.2.3 Printing the timesheet for the customer

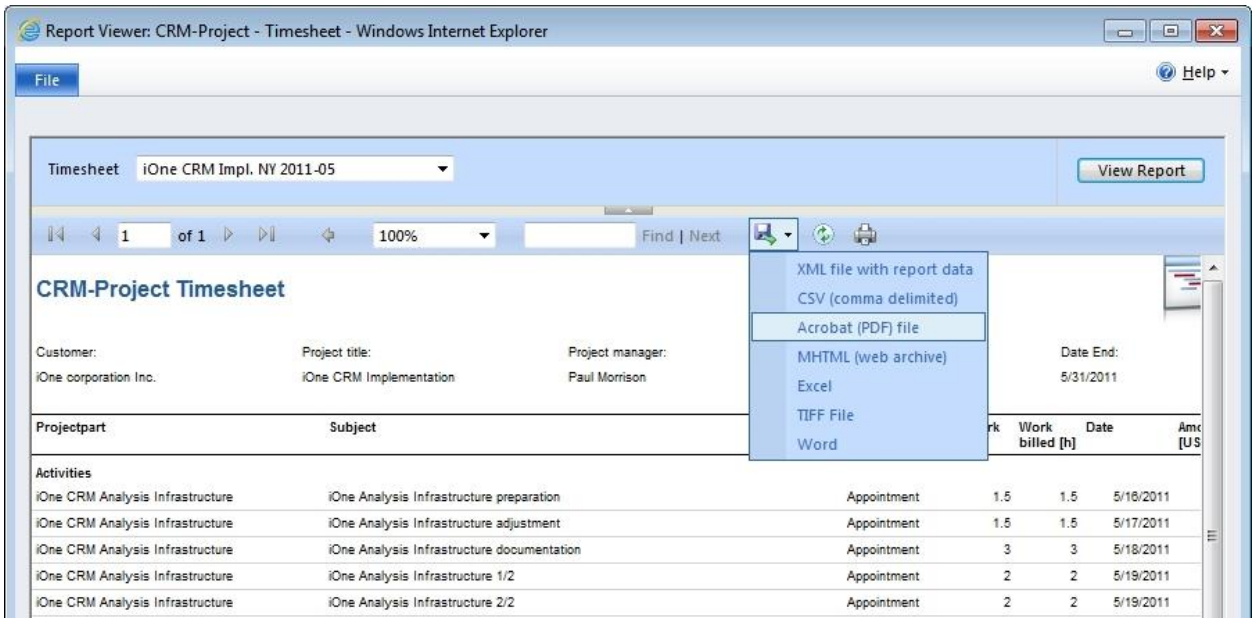
A report is available in Microsoft CRM to print and/or save the timesheet for the customer. This report can be tailored to your own corporate identity and/or modified in terms of presentation and layout.

On opening the timesheet, you will find various options to customize the columns of the report. Simply toggle the buttons yes / no for the information you require to be shown on the report.

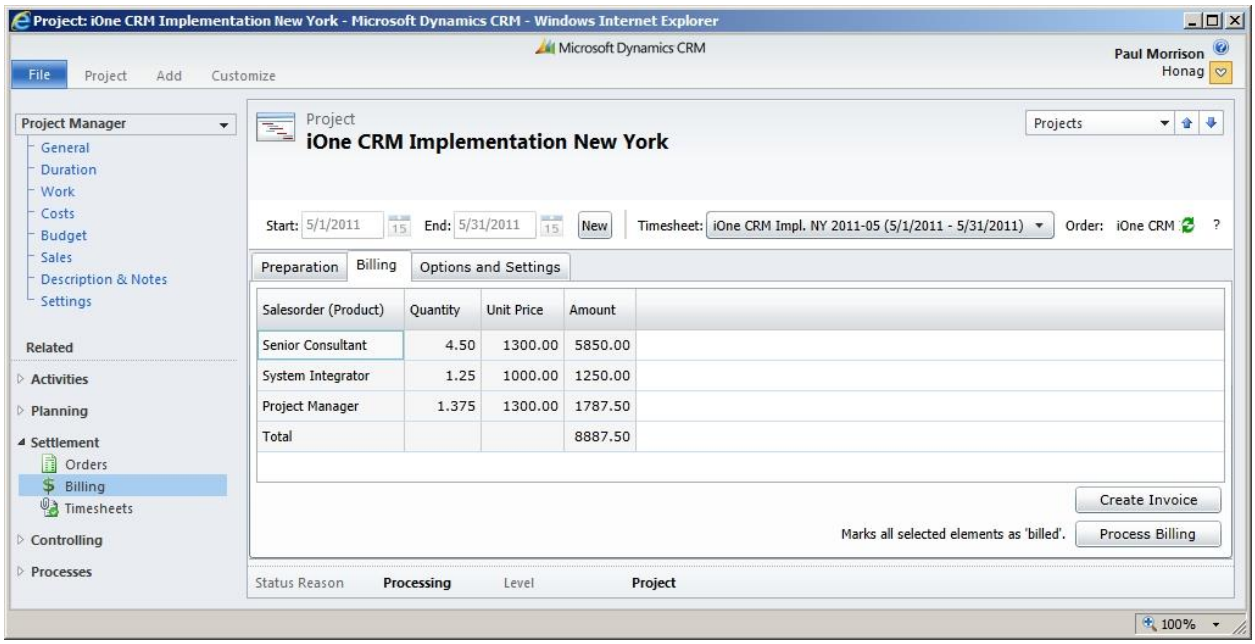
You can find it on the timesheet record under "run report".



All standard reporting export options, and of course the print function, are available on the basis of the report.



12.2.4 Creating invoices



As soon as the billing data are configured by the Preparation function, you are able to run the process of invoice creation in the Billing tab.

The billing function (before invoicing) in CRM-Project makes available all the data necessary for invoicing. In the billing process, this information is consolidated by the individual billing activities to the underlying services or products having a relevance to billing. This consolidated view on product level is shown in the Billing tab.

Pressing the "Create Invoice" button creates a new invoice for the order assigned to the timesheet, and the volumes are aligned to the service volumes of the timesheet. Also stored in the timesheet is the invoice with which the services are invoiced.

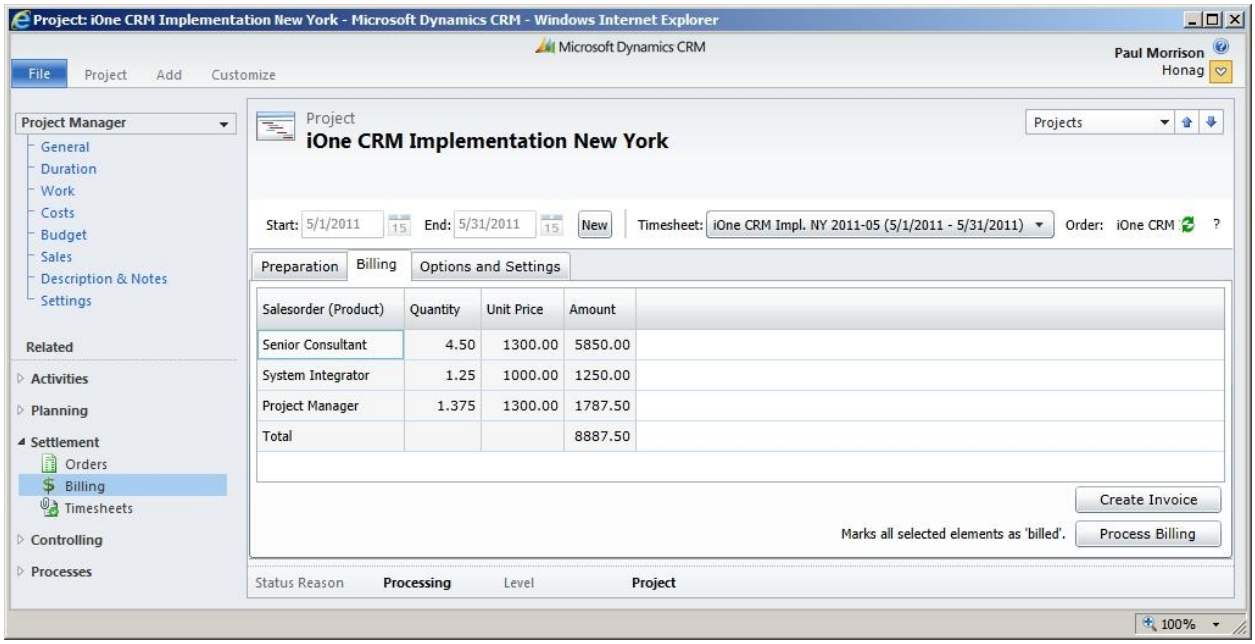
***Note**: CRM-Project uses the standard functionality of Microsoft CRM to generate the invoice from the order. In the process, invoice products are corrected to the relevant values in line with billing. Invoice products not required are assigned volume 0.*

On the basis of this invoice, there is an option in Microsoft CRM to print the invoices directly in the CRM system. For this you can either use a report or the Word Integration of Microsoft CRM (both are optional).

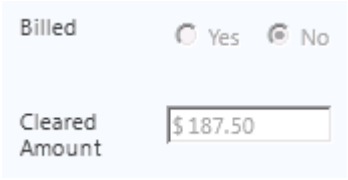
It is also possible to pass this invoice information to an external system. Given the complete storage of all relevant information in the CRM database, CRM-Project creates all the conditions for the fully-automatic transfer to ERP systems. Appropriate adapters can be used to realize a low-cost connection as part of an integration project. We recommend the Microsoft Dynamics Connector for NAV or GP integration. The professional services necessary and the adapters themselves are not part of the CRM-Project licenses.

12.2.5 Completing the billing process

After billing preparation is finished, and the required invoice information has been generated, billing can be concluded.



To do this, use the "Billing" function in the "Settlement" tab. This function marks all services (activities, travel, receipts) as "Billed".

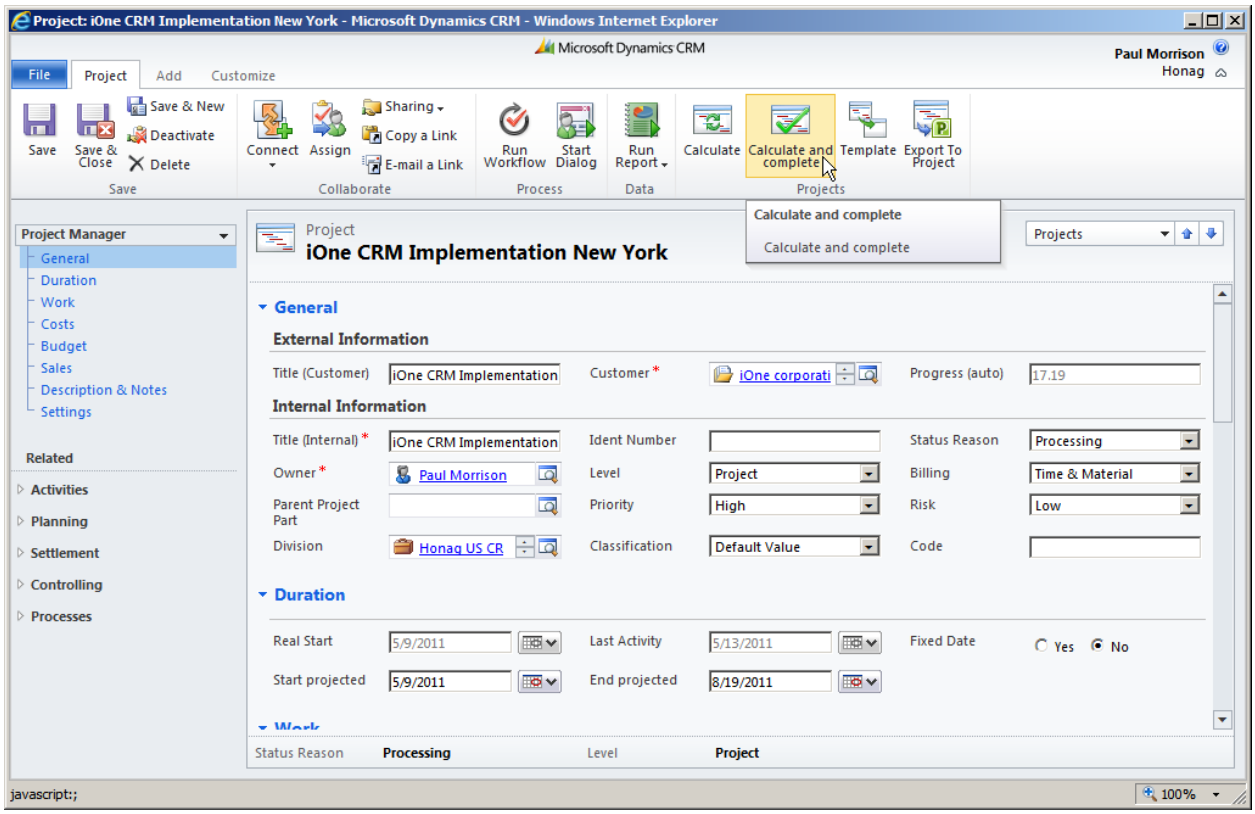


The associated timesheet is also disabled. From this point on, the timesheet and all billed services are only available to read in the Preparation function of the billing process. After billing, no other services of any kind can be added or withdrawn.

13 Project completion

To complete projects, CRM-Project provides a convenient function to complete large projects with many subprojects in particular.

Projects can either be completed directly in structure plan (see section 5.3.1.1) or through the menu 'Calculate and Complete'.



The second option includes the following steps:

- Open the project to be completed.
- Select **Calculate and Complete** in the project menu.
- Confirm the dialog with the **Start** button.
- The project is calculated for final updating of all the values.
- Then the project, including elements underneath, is completed.

Note: *CRM-Project issues a warning message if the project or a subproject does not yet contain completed activities. The project cannot be closed until all activities are complete.*

Tip: *This function can also be used to close subprojects of an overall project. The function always pertains to the part of the project from where it was called, and all subprojects underneath.*

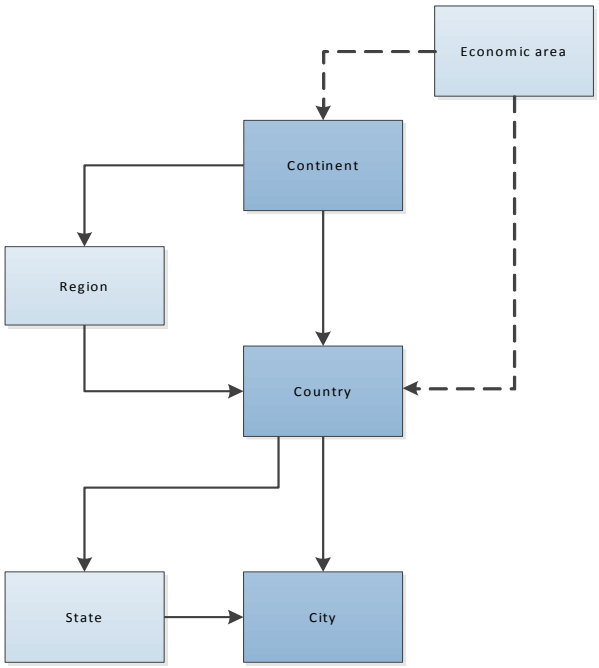
14 Extensions

14.1 Area

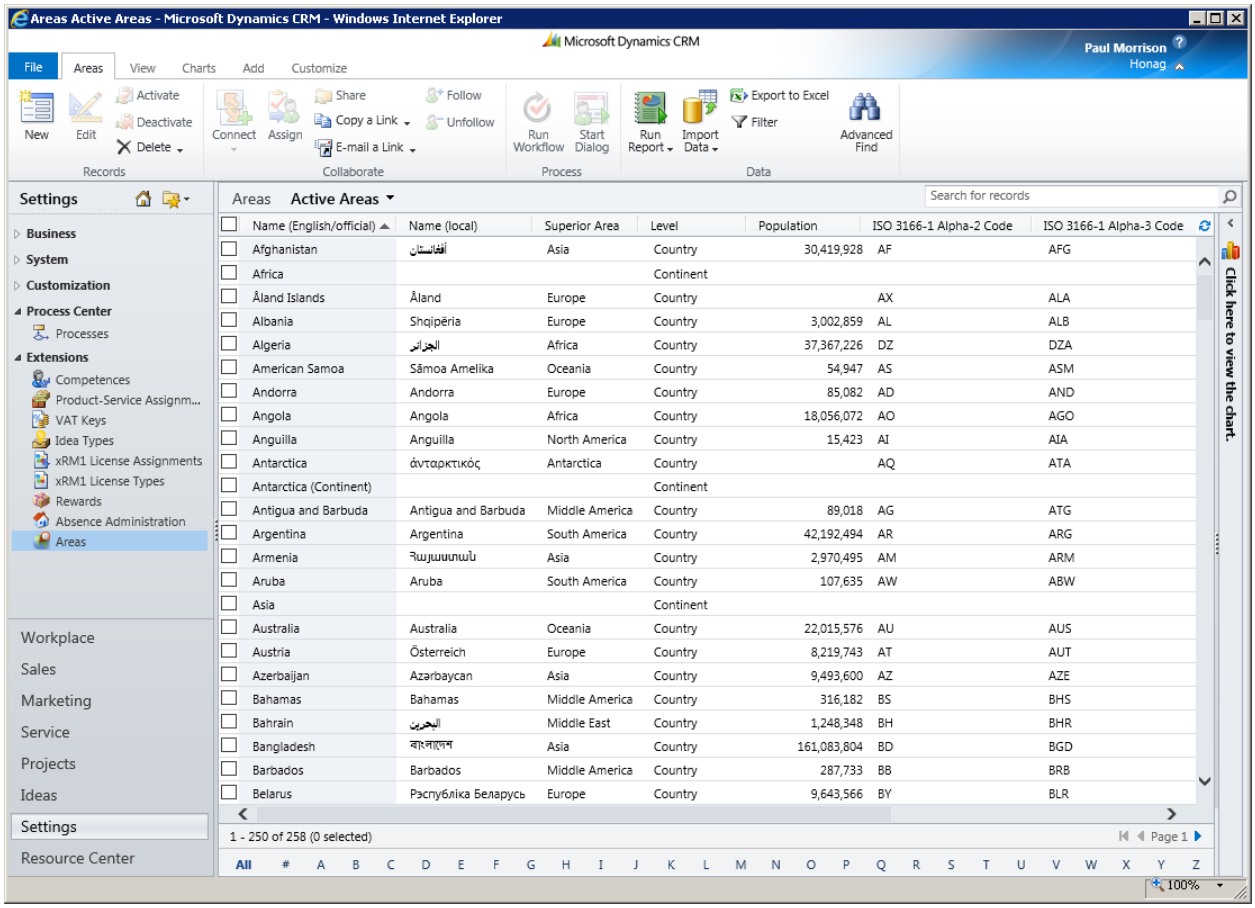
xRM1 Solutions contain an entity „Area" to represent the geographical locations and their characteristics.

Area structures can be added to your Microsoft Dynamics CRM and can be used for different business processes.

You can import provided data set or create your individual structures. The structures can be built hierarchically from "Economic area" on the top level to the "City" on the bottom level. Following picture display the possible hierarchical tree of the area structure.



Find the "Area" entity by selecting Settings => Extensions.



You can import a provided data set or create your own structures. To know more about importing, please see section 14.1.3.

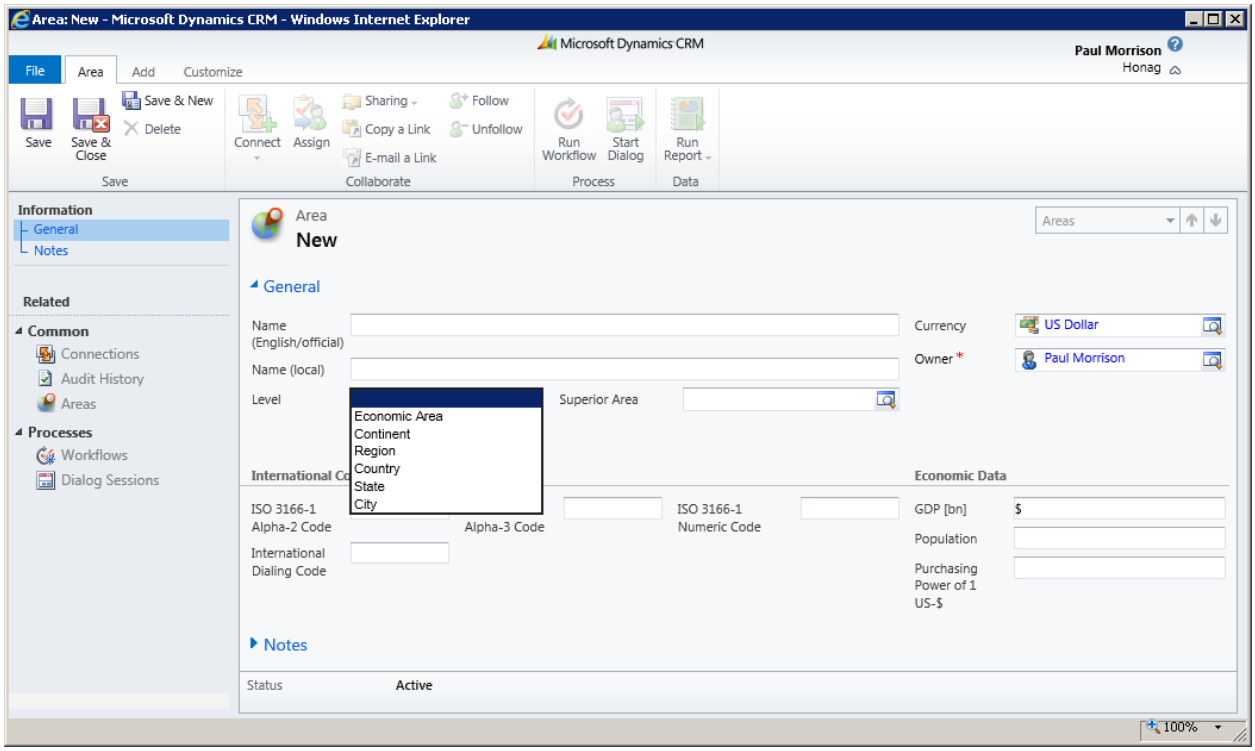
14.1.1 Area fields overview

The Area entity contains the following field (attributes):

		Availability for level					
Fields	Description	Econo-mic Area	Conti-nent	Region	Country	State	City
General							
Name (English/official)	Globally valid name in English	x	x	x	x	x	x
Name (local)	Local name in the respective language	x	x	x	x	x	x
Level	Area-level in the tree structure	x	x	x	x	x	x
Superior Area	The parent area		x	x	x	x	x
Currency	Currency of the country	x	x	x	x	x	x
Owner	Owner of the record	x	x	x	x	x	x
International Codes							
International Dialing Code	Telephone prefix for an international call				x	x	x
ISO 3166-1 Alpha-2 Code	Two-digit country code defined by ISO-3166-1				x		
ISO 3166-1 Alpha-3 Code	Three-digit country code defined by ISO-3166-1				x		
ISO 3166-1 Numeric Code	Three-digit numeric country code defined in ISO 3166-1				x		
Economic data							
Population	Number of residents in the area				x		
GDP [bn]	The gross domestic product (abbreviated GDP) is the total value of all goods (goods and services) that were produced within one year, within the boundaries of an economy and serve the end-use.				x		
Purchasing power of 1 US $	The purchasing power of money indicates what quantity of goods can be bought with a certain amount of money.				x		

14.1.2 Create new area

Find the "Area" entity selecting Settings => Extensions. For creating a new record of this type, click on "New". You can create your own area and/or integrate it into the structure tree by using the fields "Superior Area" and "Level". Depending on the level, some additional data can be put into the system. Read more about it in section 14.1.3.

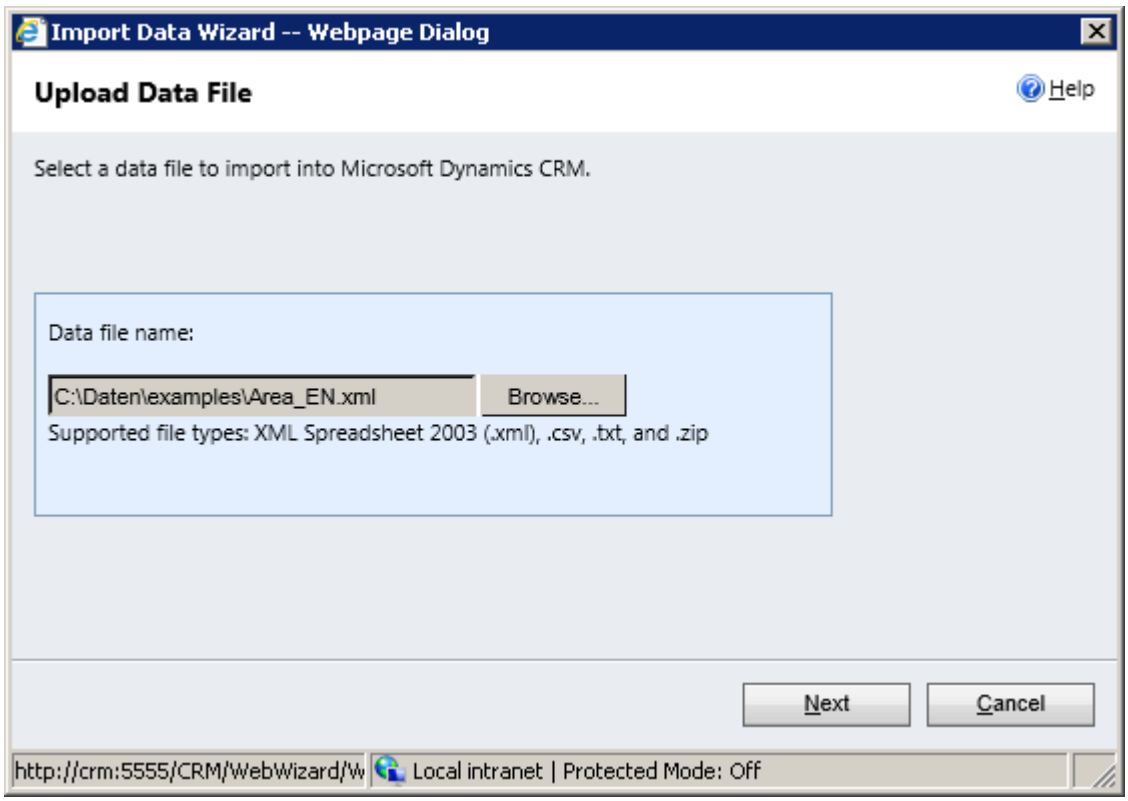


14.1.3 Import of Area records

You can download a data set, for the "Area", from our customer or partner portal and import the data onto your CRM system. The data set provides you with 249 countries, related to 9 continental areas (North-, South-, Middle America, Europe, Middle East, Asia, Africa, Oceania, Antartica) in all supported languages. Furthermore, it includes the following country informationInternational Dialing Code

- ISO 3166-1 Alpha-2 Code
- ISO 3166-1 Alpha-3 Code
- ISO 3166-1 Numeric Code
- GDP [bn]
- Population
- Purchasing Power of 1 US-$

To import the "Area"-data set onto the system, first extract the zip-Folder "Area_Content_Various_Languages" and then start the CRM import function. With "Browse..", select the xml-File in your UI language for import. For example: select "Area_EN"-file if the language of your user interface is English.



14.1.4 Integrate and apply Area

You can easily integrate the Area into your business processes. For example, you can use the "Area" data and structures for:

- Organizing, evaluating and controlling your global projects,
- Organizing your travel, depending on the location,
- Design your invoicing processes according the relevant location (etc.)

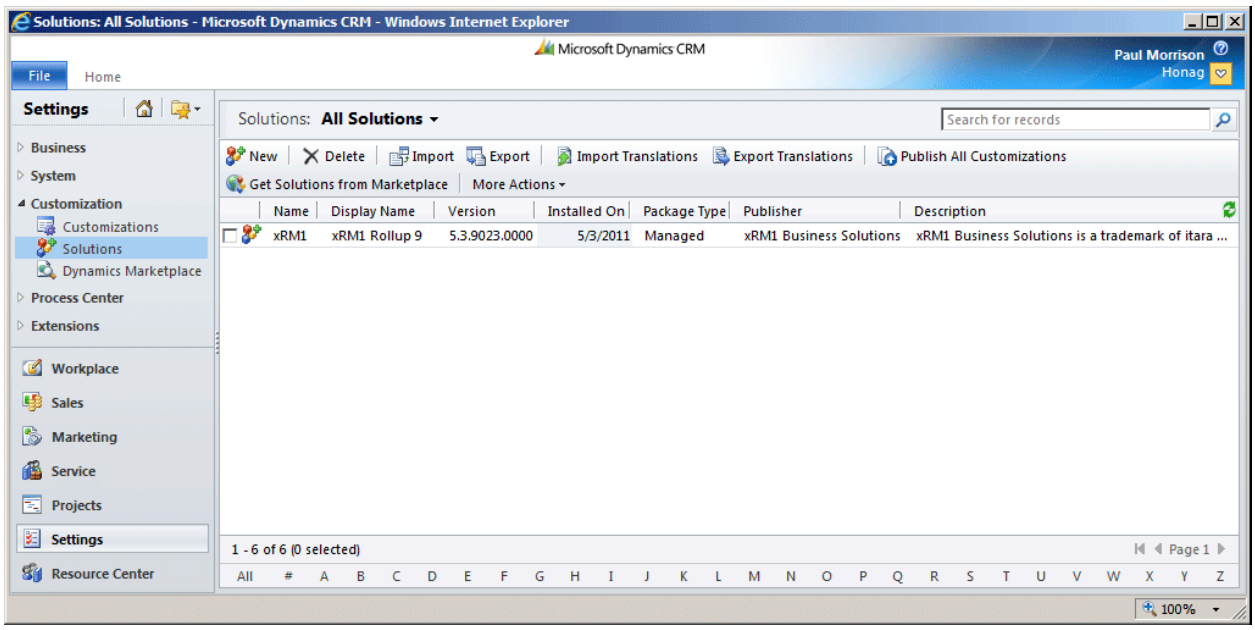
15 Licenses and authorization

To have complete use of your xRM1 Business Solutions, the following standard settings are to be adjusted once.

Settings can be automatically adjusted with the help of the xRM1 Activation and Configuration Wizards (see Section 15.3 or 15.4), or set manually.

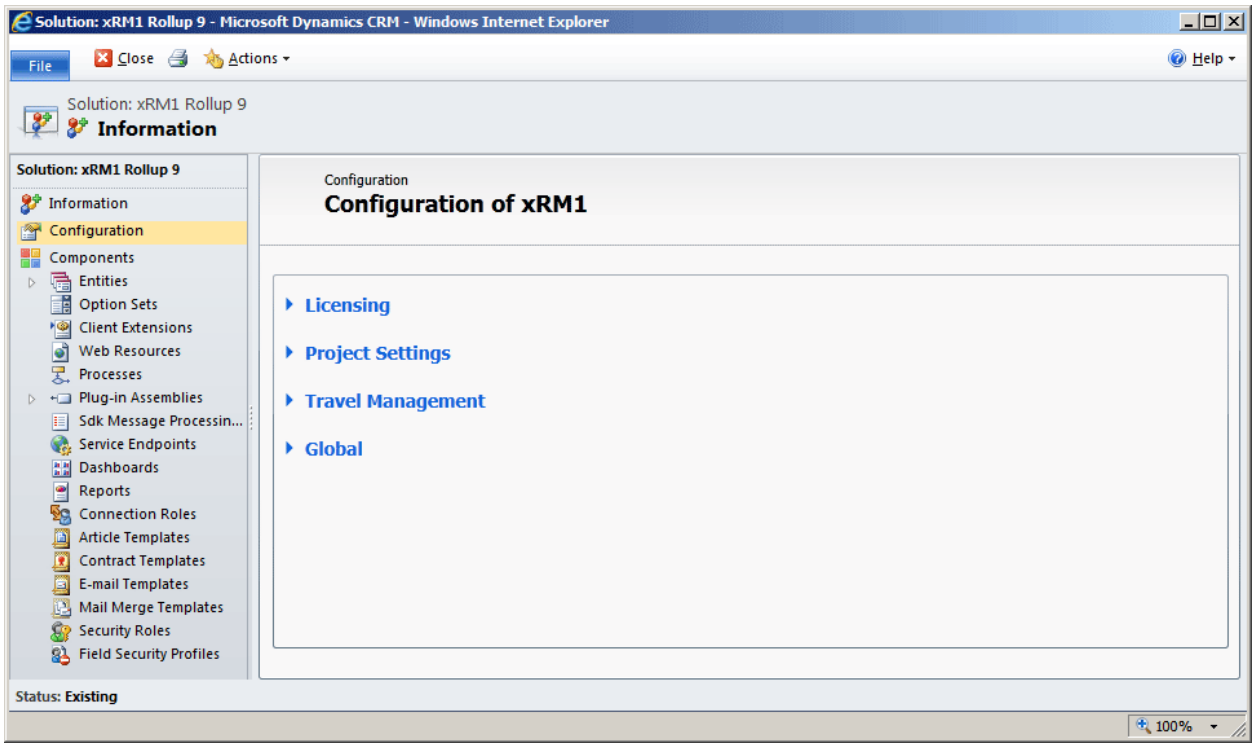
15.1 Settings

Settings for xRM1 Business Solutions can be adjusted under 'Settings> Solutions > xRM1'.



By selecting the solution field, you will be automatically taken to the settings page.

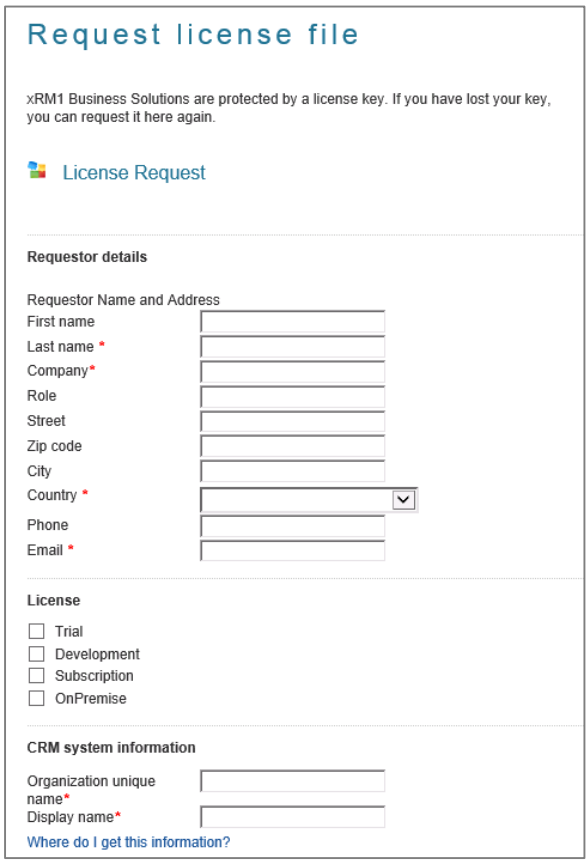
Note: *You require the 'CRM-Project Administrator' to adjust the settings.*



15.1.1 Request a license

If you need a xRM1 license, you can request it via our customer portal:

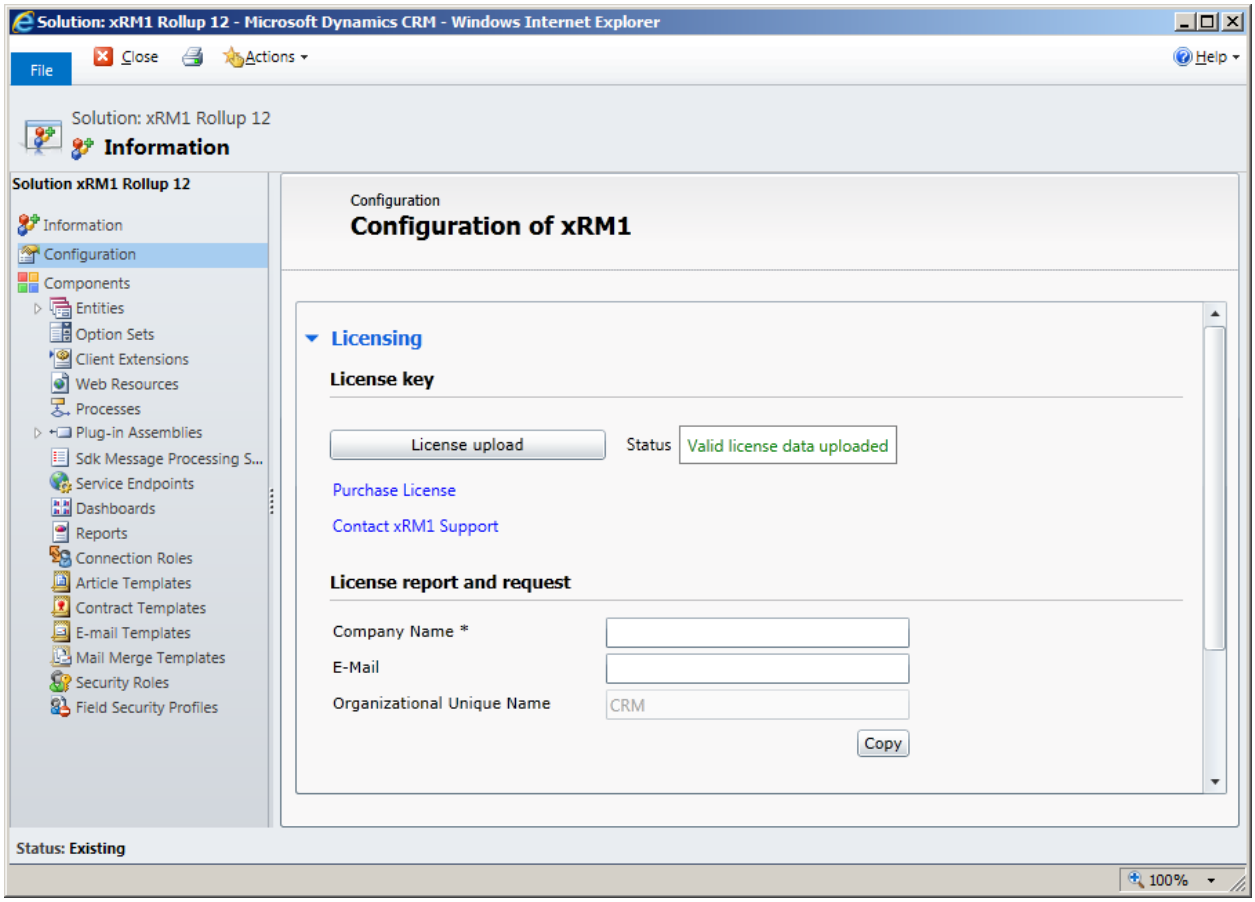
http://www.xrm1.com/customer/license-file.htm



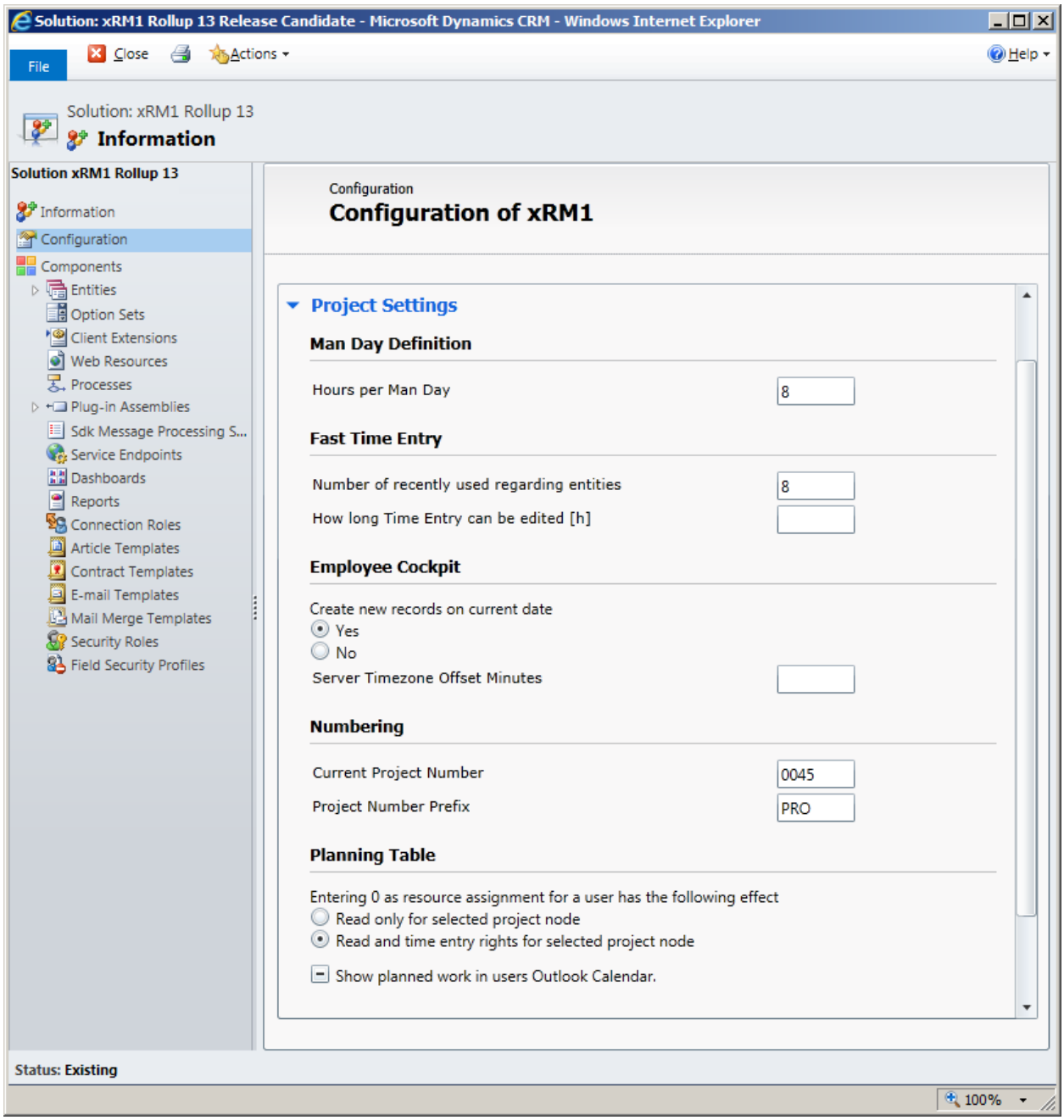
The xRM1 team will create and send you a license for uploading in your xRM1 Business Solutions.

15.1.2 Upload a license

You can upload and store your license under 'Configuration of xRM1' => Licensing.



15.1.3 Project Settings



- ‚***Hours per Man Day***': Fill-in the standard number of working hours, per work day, for a full-time employee. 8 hours is set as the standard. Possible entries are between 0 h and 24 h.
- '***Fast Time Entry'***: Specify how many entities should be listed in the fast time entry range 'Recently used'. You can also define the period of time in which corrections to the submitted fast entries can be made.
- ***'Employee Cockpit'.*** The date of a new entry in the Employee Cockpit can be set to the current date ("Yes") or to the date of the last entry ("No").

  "Server Timezone Offset Minutes" should be set if your client computers are NOT in the same time zone as your server. Specify the time zone offset of your server as follows:

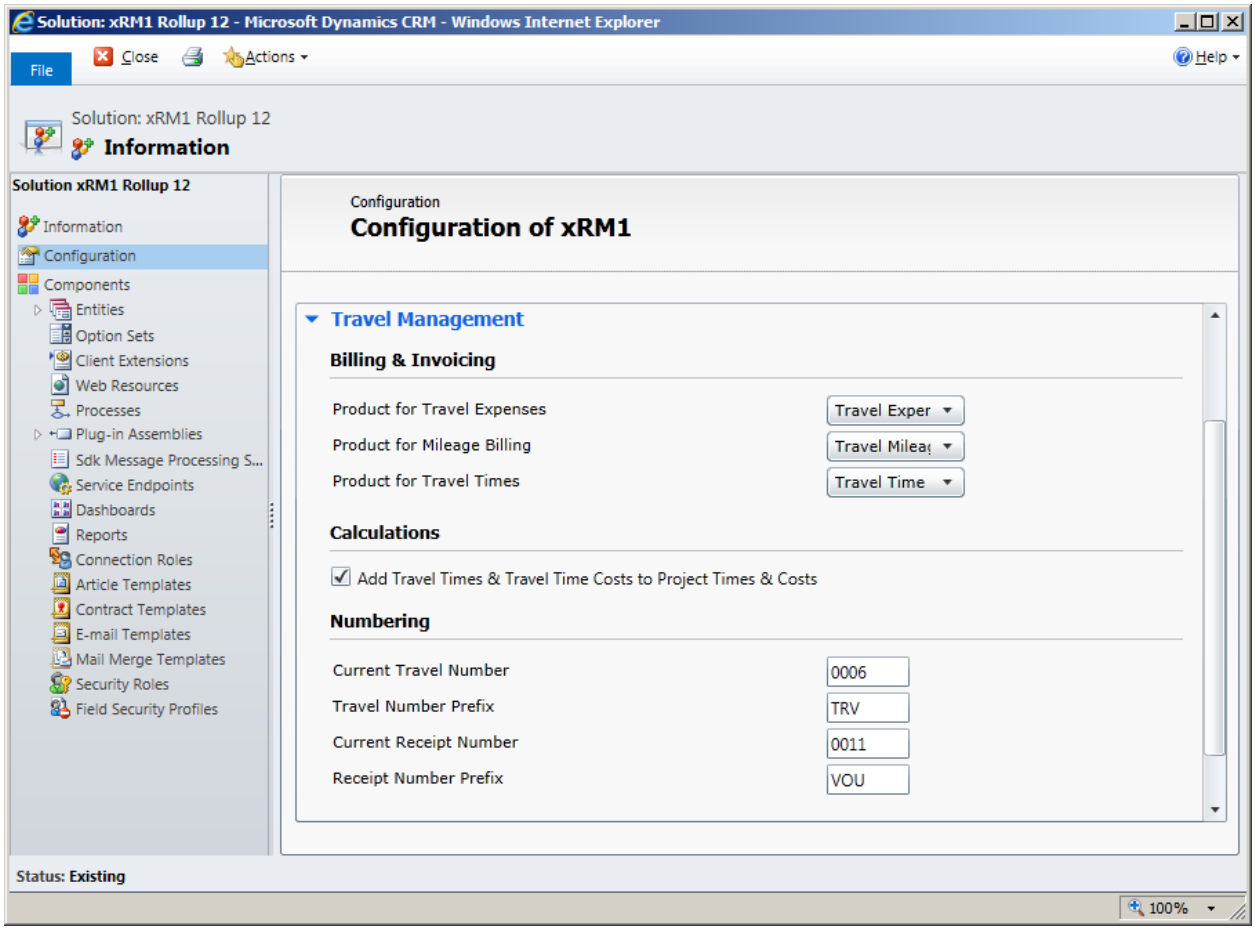
  - If you are using Microsoft CRM Online, your server will be installed on UTC time; so the offset will be 0.
  - If you are accessing a server from clients in a different time zone, you have to insert the time zone offset of your server compared to UTC in minutes.

  E.g. if your server is located in EST (UTC-5), then your time zone offset is 5h x 60 = 300 Minutes.

  E.g. if your server is located in Sydney (UTC+10), then your time zone offset is -10h x 60 = -600 Minutes.

- '***Numbering***': Set the number range and prefix for the automatic project numbering. When no prefix is set, the project will be consecutively numbered without a prefix. If you don't enter a number as a starting value, no numbering will be done for project nodes.
- '***Planning Table***': Here you control the rights of the project members, if you enter allocation of '0' in the Planning Table.
- Activating 'Show planned work in users Outlook calendar' will allow project allocations (team entry through the Planning Table) to be synchronized and viewed with Outlook Calendar.

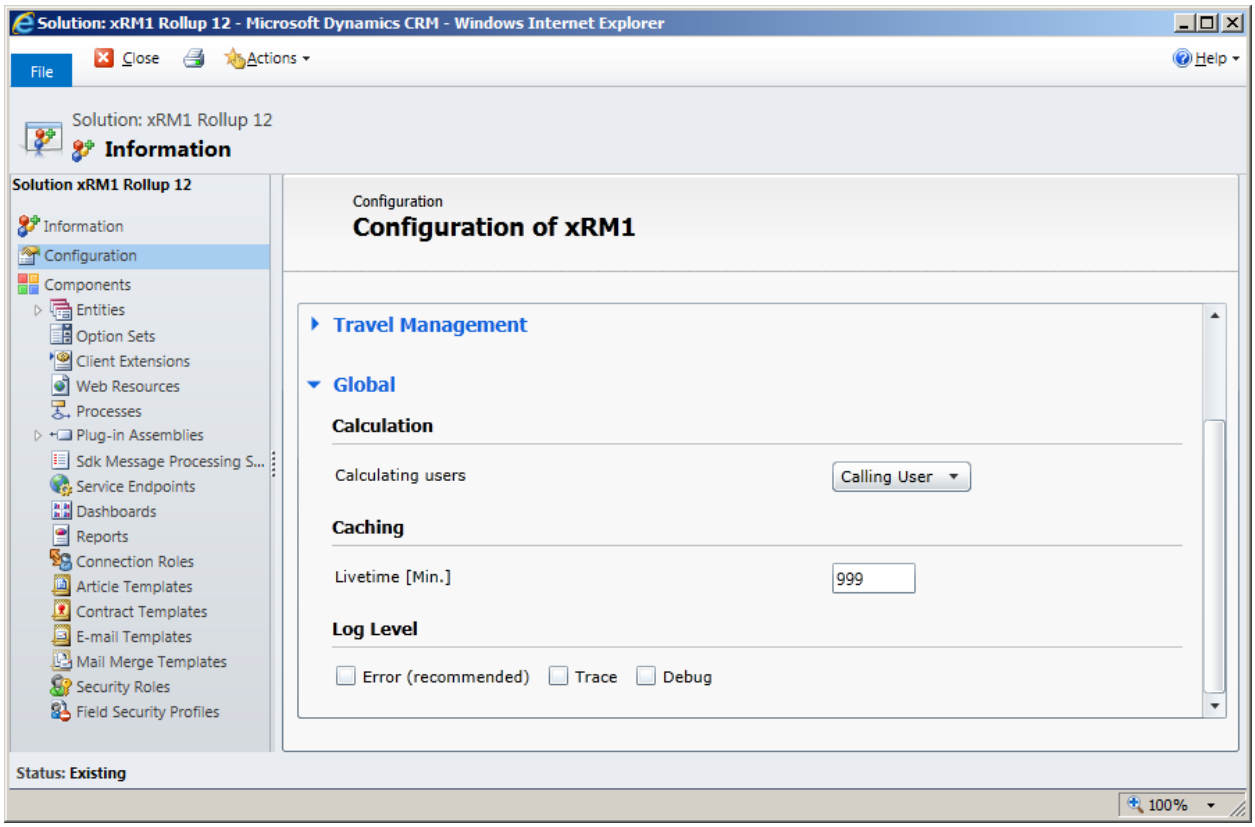
15.1.4 Travel Management



- '***Billing and Invoicing***': For CRM-Project to bill correctly, it is necessary to specify which products from the company product catalogue will be used for billing travel expenses and time. There are three products which need to be specified:
  - Product for billing travel expenses (flat rate or according to receipts)
  - Product which includes the mileage rates
  - Product for billing travel time (flat rate or per hour)

  To bill travels, it is necessary, depending on customer billing method, that one or more of these products are set as order products in the project order (see Order Settings for Travel Management in section12.1.6).
- '***Calculation***': This button is available for adding project travel time and associated expenses. This generally concerns activities which have been scheduled for the travel (e.g. point of departure, point of arrival) as well as related expenses (e.g. based on the hours of the users). Receipts (travel expenses) won't be affected by this button and are always added to the project costs.
- '***Numbering***': Set the number range and prefix for automated travel and receipt numbering. When no prefix is set, travel as well as receipts will be numbered without one. When no number is set as a starting value, absolutely no numbering will be done for travel and/or receipts.

15.1.5 Global



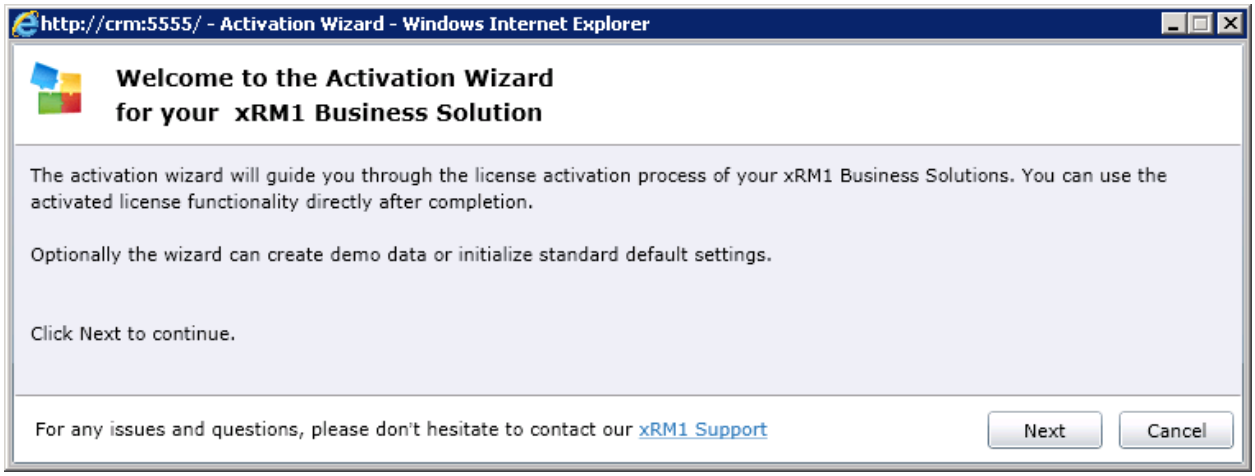
- *'**Calculation**':* This setting can be used to limit project access rights. The selected user should have access rights to the relevant project billing fields. In addition, it is necessary to adjust security roles accordingly: for further information, please see sections 15.7.10 and 15.7.11.
- *'**Caching**':* Specify how long cashed user specific calendar availability should be valid for. The less often you change the calendar settings (e.g. user work hours), the more you can increase the values.
- *'**Log Level**':* Set the xRM1 solution log level. We recommend setting 'Error'.

15.2 Installation

Information, such as how to install the solution, can be found in the 'Getting Started Guide'. This can be downloaded from the xRM1 website. Select 'Products' and 'CRM-Project'; then you will find the document on the right hand side under 'Downloads CRM-Project'.

15.3 Activating the solution (Activation Wizard)

Solution activation is assisted with the 'Activation Wizard'. You can find this in the ribbon bar under 'Settings' → 'xRM1 License Types'.

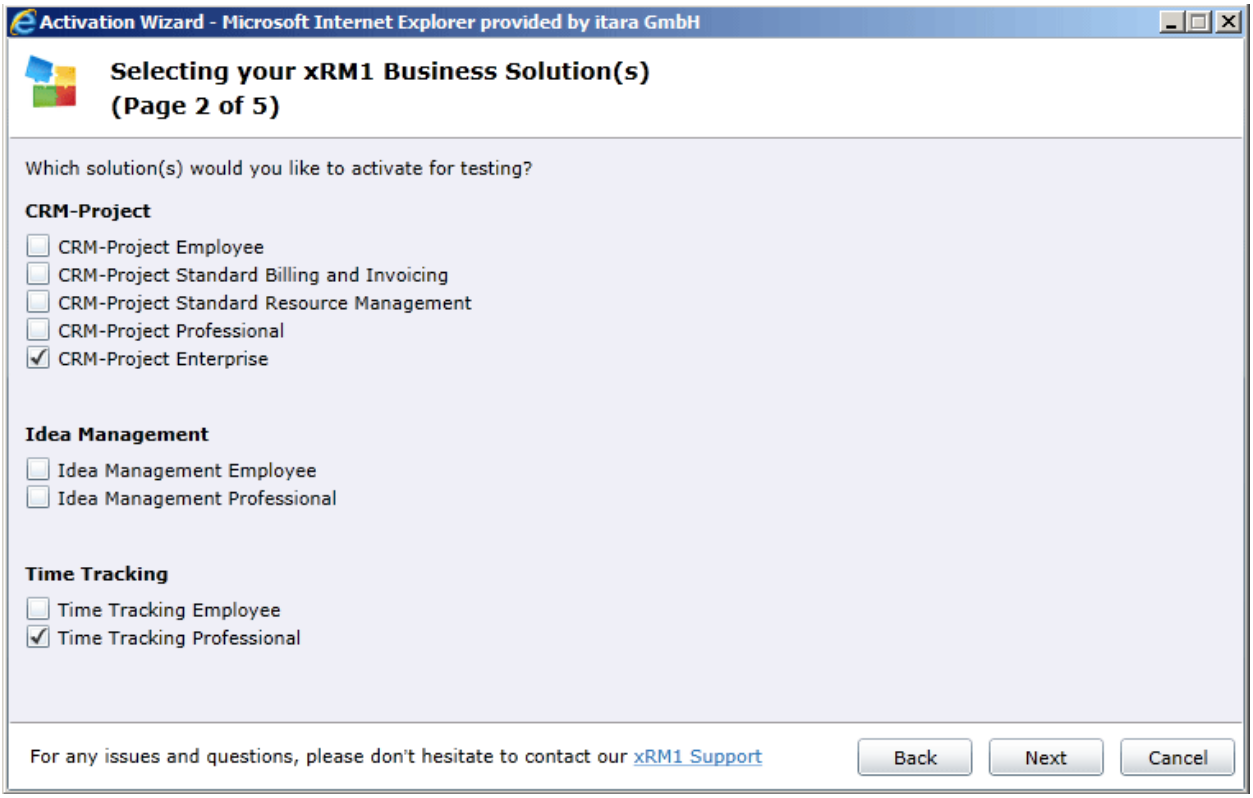

http://crm:5555/ - Activation Wizard - Windows Internet Explorer
Welcome to the Activation Wizard
for your xRM1 Business Solution
The activation wizard will guide you through the license activation process of your xRM1 Business Solutions. You can use the activated license functionality directly after completion.
Optionally the wizard can create demo data or initialize standard default settings.
Click Next to continue.
For any issues and questions, please don't hesitate to contact our xRM1 Support
Next
Cancel

First, you will be asked whether you would like to activate a test version, temporary or purchased license.

http://crm:5555/ - Activation Wizard - Windows Internet Explorer
License activation for xRM1 Business Solutions
(Page 1 of 5)
Activation options:
I would like to begin with a free trial (without license, valid 14 days beginning with import)
I would like to to use a temporary License
I would like to upload a license
For any issues and questions, please don't hesitate to contact our xRM1 Support
Back
Next
Cancel

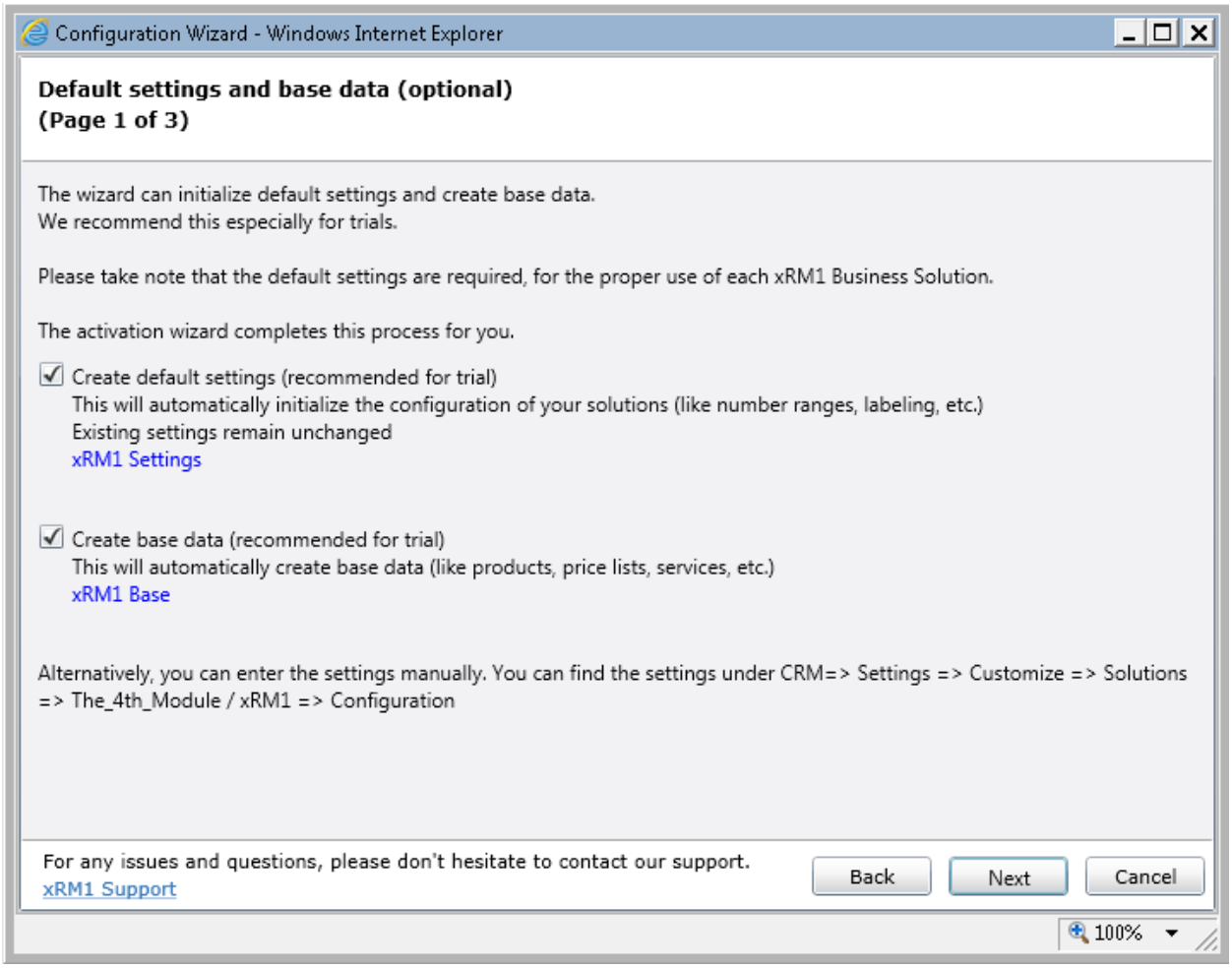
15.3.1 Activate a free trial

Here, you choose the solution(s) which you would like to be activated, by checking the applicable boxes.



Please keep in mind that the license types 'CRM-Project Employee', 'Idea Management Employee', and 'Time Tracking Employee' can't be used independently during the trial time. These license types must be used in correlation with other appropriate business solution license types.

In the next step you have the option to create default settings and base data. Please select the applicable boxes.


Configuration Wizard - Windows Internet Explorer
Default settings and base data (optional)
(Page 1 of 3)
The wizard can initialize default settings and create base data.
We recommend this especially for trials.
Please take note that the default settings are required, for the proper use of each xRM1 Business Solution.
The activation wizard completes this process for you.
Create default settings (recommended for trial)
This will automatically initialize the configuration of your solutions (like number ranges, labeling, etc.)
Existing settings remain unchanged
xRM1 Settings
Create base data (recommended for trial)
This will automatically create base data (like products, price lists, services, etc.)
xRM1 Base
Alternatively, you can enter the settings manually. You can find the settings under CRM=> Settings => Customize => Solutions => The_4th_Module / xRM1 => Configuration
For any issues and questions, please don't hesitate to contact our support.
xRM1 Support
Back
Next
Cancel
100%

We recommend applying the default settings in the instance you are running a test version or when you would like to quickly and productively start your xRM1 business solution. For advanced use, additional configuration are recommended. The following data will be created:

Setting	***Default***	***Description***
Hours per Man Day [h]	8	Select the number of work hours, per work day, of a full-time employee.
Number of recently used regarding entities	5	Specify how many recetly used items to list in the Fast Time Entry
How long Time Entry can be edited [h]	24	The length of time in which corrections can be made to Fast Time Entries.
Current project number	0000001	Number sequence for automatic project numbering.
Project number prefix	PRO	Prefix for automatic project numbering
Travel time/travel expenses added to the project	Active	This setting specifies whether associated trips, travel times, and related travel expenses should be added to a project or not.
Current travel number	0000001	Number sequence for automatic travel numbering.
Travel number prefix	TRV	Prefix for automatic travel numbering.
Current receipt number	0000001	Number sequence for automatic receipt numbering.
Receipt number prefix	VOU	Prefix for automatic receipt numbering.
Cache	500	Length of time in which cached user-specific calendar availability should be valid for.
Log level	Error	Here, the log level is set.

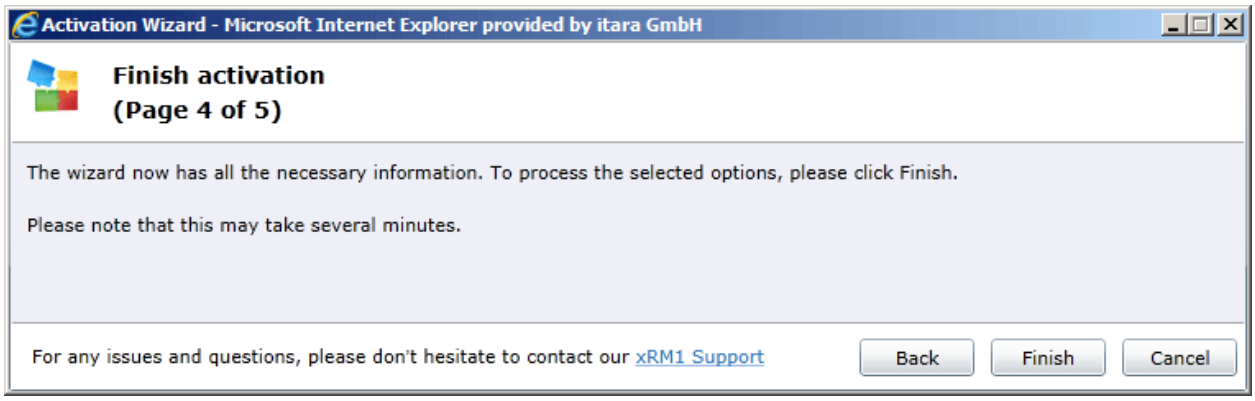
To begin a solution test as quickly as possible, we recommend configuring basic data/demo data. The following data will be created:

Entity	***Record Description***	***Values***
Default Unit	Default Unit for Travel	Name: Per Diem Amount: 1
	Default Unit for Mileage Billing	Name: Mile Amount: 1
	Default Unit for Work/Travel Times	Name: MD Amount: 1
Unit Group	Unit Group for Travel	Name: xRM1 Travel
	Unit Group for Mileage Billing	Name: xRM1 Distance
	Unit Group for Work/Travel Times	Name: xRM1 Work
Product	Product for Travel Times	Name: Traveltimes (xRM1) Default Unit: MD Unit Group: xRM1 Work Default Price List: Price List (xRM1) Decimals Supported: 5
	Product for Travel Expenses	Name: Travelcosts (xRM1) Default Unit: Per Diem Unit Group: xRM1 Travel Default Price List: Price List (xRM1) Decimals Supported: 5
	Product for Mileage Billing	Name: Distance (xRM1) Default Unit: Mile Unit Group: xRM1 Distance Default Price List: Price List (xRM1) Decimals Supported: 5
	Product for a Service Product (1)	Name: Professional Service 1 (xRM1) Default Unit: MD Unit Group: xRM1 Work Default Price List: Price List (xRM1) Decimals Supported: 5
	Product for a Service Product (2)	Name: Professional Service 2 (xRM1) Default Unit: MD Unit Group: xRM1 Work Default Price List: Price List (xRM1) Decimals Supported: 5
	Product for a Service Product (3)	Name: Professional Service 3 (xRM1) Default Unit: MD Unit Group: xRM1 Work Default Price List: Price List (xRM1) Decimals Supported: 5
Services	Service for a Project Service (1)	Name: User Service 1 (xRM1) Initial Status Reason: reserved Default Duration: 2 hours Start Activities Every: 2 hours Beginning At: 8:00 am
	Service for a Project Service (2)	Name: User Service 2 (xRM1) Initial Status Reason: reserved Default Duration: 2 hours

Entity	*Record Description*	*Values*
		Start Activities Every: 2 hours Beginning At: 8:00 am
	Service for a Project Service (3)	Name: User Service 3 (xRM1) Initial Status Reason: reserved Default Duration: 2 hours Start Activities Every: 2 hours Beginning At: 8:00 am
Product-Service Assignment	Product-Service Assignment (1) to a Service Product (1)	Professional Service 1 (xRM1) <=> User Service 1 (xRM1)
	Product-Service Assignment (2) to a Service Product (2)	Professional Service 2 (xRM1) <=> User Service 2 (xRM1)
	Product-Service Assignment (3) to a Service Product (3)	Professional Service 3 (xRM1) <=> User Service 3 (xRM1)
Price List	Price List for billing of -Products and Travels	Name: Price List (xRM1) Currency: $/€/… (System-Currency)
Price List Items	Price List Item for Service Product (1)	Product: Professional Service 1 (xRM1) Quantity Selling Options: Whole and Fractional Unit: MD Pricing method: Currency Amount Amount: 1100
	Price List Item for Service Product (2)	Product: Professional Service 2 (xRM1) Quantity Selling Options: Whole and Fractional Unit: MD Pricing Method: Currency amount Amount: 900
	Price List Item for Service Product (3)	Product: Professional Service 3 (xRM1) Quantity Selling Options: Whole and Fractional Unit: MD Pricing Method: Currency Amount Amount: 750
	Price List Item for Travel Expenses	Product: Travelcosts (xRM1) Quantity Selling Options: Whole and Fractional Unit: Per Diem Pricing Method: Currency Amount Amount: 1
	Price List Item for Travel Times	Product: Traveltimes (xRM1) Quantity Selling Options: Whole and Fractional Unit: MD Pricing Method: Currency Amount Amount: 1
	Price List Item for Mileage Billing	Product: Distance (xRM1) Quantity Selling Options: Whole and Fractional Unit: Miles Pricing Method: Currency Amount Amount: 0,5

Entity	*Record Description*	*Values*
User (applies only to the logged in user)	Project-related User Data	User: Logged in User License Typ: As in Wizard selected Default Service: User Service 1 (xRM1) Annual Leave: 24 Remaining Leave: 6 Hourly Cost: 100 $/€/… (System-Currency)
Configuration of xRM1	Connection for the Travel Products	Product for Travel Times: Traveltimes (xRM1) Product for Travel Expenses: Travelcosts (xRM1) Product for Mileage Billing: Distance (xRM1)
Tax Key	Germany's Tax Key for products, which are not taxable due to reverse-charge procedure or 3rd Party country.	Name: MwSt Deutschland (Europa)
	Tax Key for Tax Free products.	Name: MwSt Deutschland (frei) Tax Rate [%]:0.0
	Reduced Tax Key for value added tax (VAT) in Germany.	Name: MwSt Deutschland (reduziert) Tax Rate [%]:7.0
	Standard Tax Key for value added tax (VAT) in Germany.	Name: MwSt Deutschland (voll) Tax Rate [%]:19.0
Tax Value	Rate is not taxable in Germany due to reverse-charge procedure or 3rd Party country.	Tax Rate [%]:0.0
	Rate for Tax Free products.	Tax Rate [%]:0.0
	Reduced rate of value added tax (VAT) in Germany.	Tax Rate [%]:7.0
	Standard rate of value added tax (VAT) in Germany.	Tax Rate [%]:19.0

The activation can subsequently start.

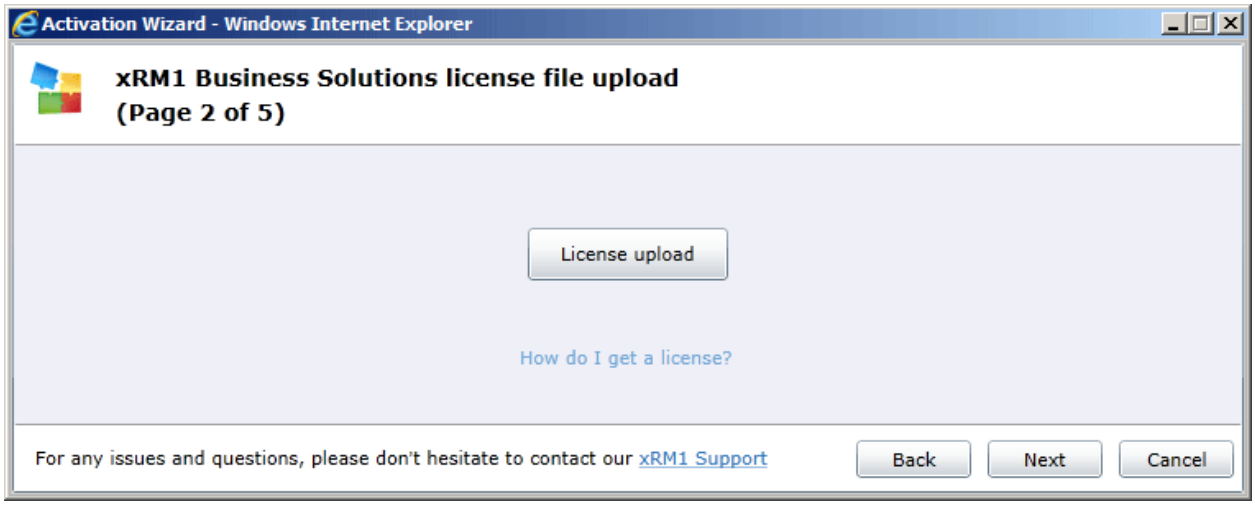

Activation Wizard - Microsoft Internet Explorer provided by itara GmbH
Finish activation
(Page 4 of 5)
The wizard now has all the necessary information. To process the selected options, please click Finish.
Please note that this may take several minutes.
For any issues and questions, please don't hesitate to contact our xRM1 Support
Back
Finish
Cancel

After the activation has finished, the following message will appear.

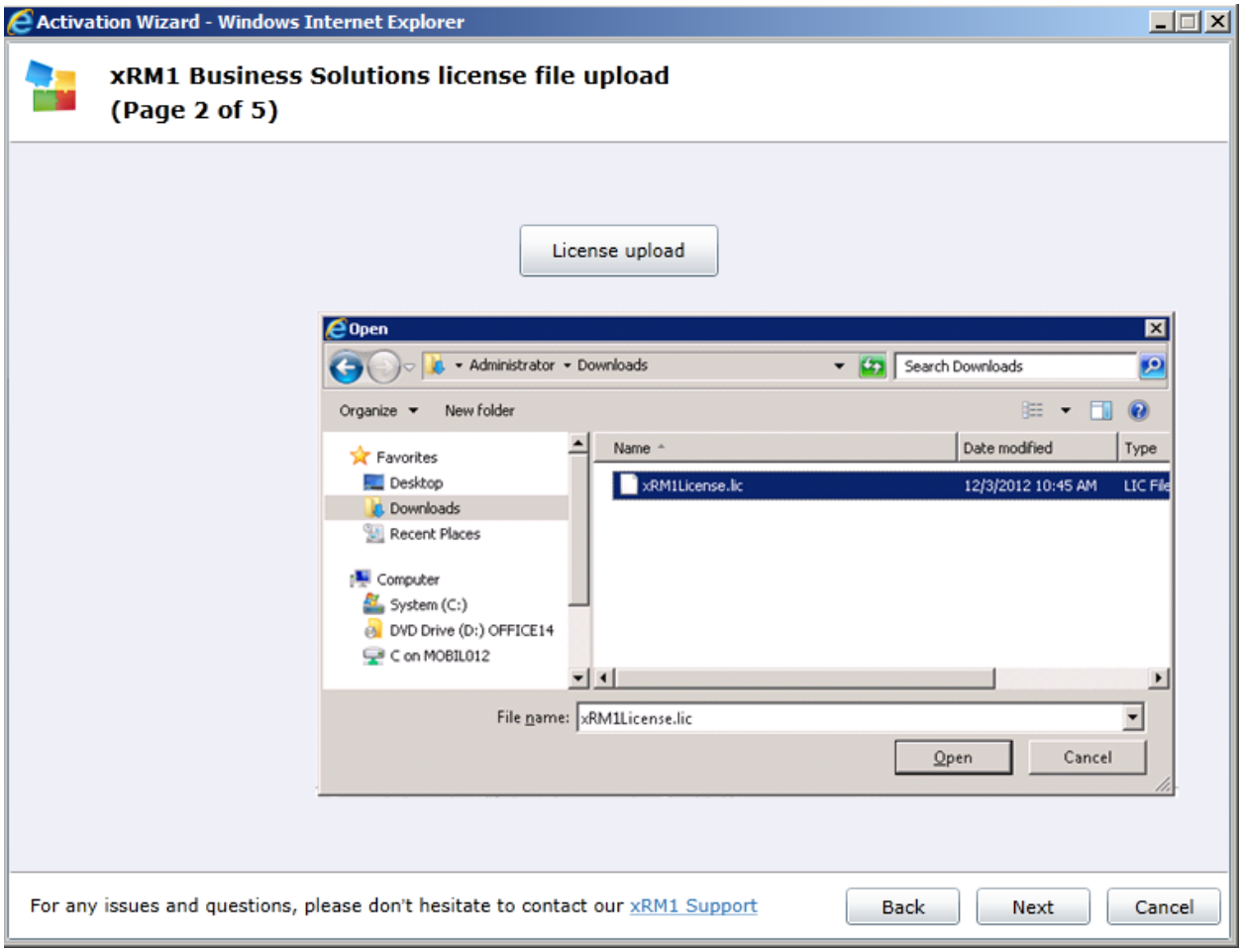
Activation Wizard - Microsoft Internet Explorer provided by itara GmbH
Finish activation
(Page 5 of 5)
Modifications of settings done.
Creating demo data done.
Submitting license data done.
Managing solution done.
Configuration completed.
For any issues and questions, please don't hesitate to contact our xRM1 Support
Close

15.3.2 Activating a temporary or permanent license

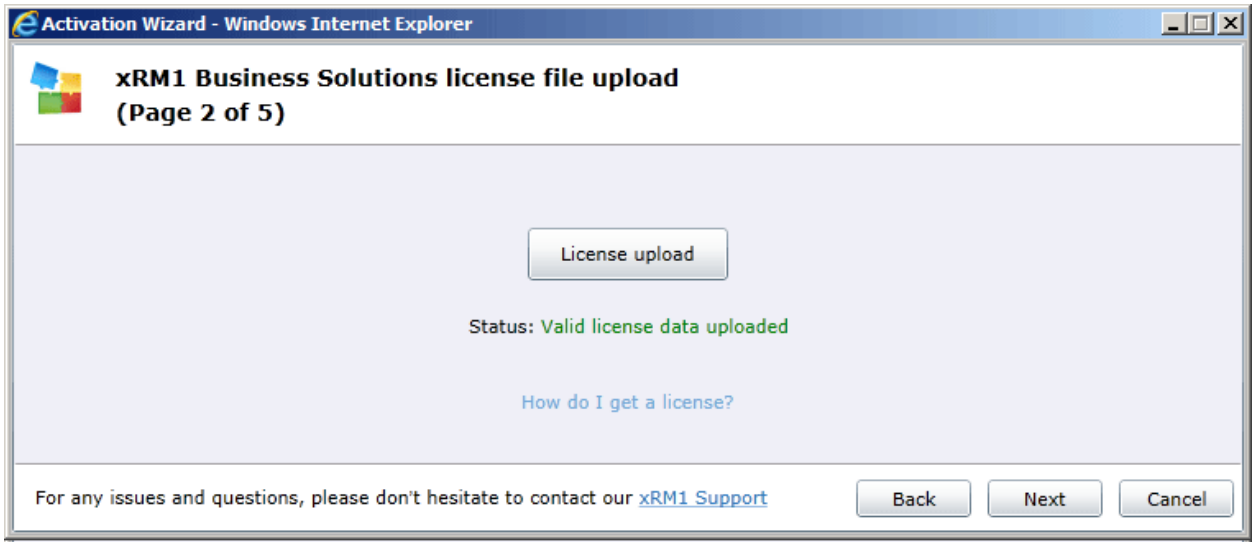
When you select the option to activate a temporary or permanent license, a window will appear where you will be able to upload the license.


Activation Wizard - Windows Internet Explorer
xRM1 Business Solutions license file upload
(Page 2 of 5)
License upload
How do I get a license?
For any issues and questions, please don't hesitate to contact our xRM1 Support
Back
Next
Cancel

Selecting the corresponding button will open Internet Explorer window, allowing you to select your saved license file.



After selecting "Open", the data will be uploaded and a message will appear indicating whether you have uploaded a valid or expired license.


Activation Wizard - Windows Internet Explorer
xRM1 Business Solutions license file upload
(Page 2 of 5)
License upload
Status: Valid license data uploaded
How do I get a license?
For any issues and questions, please don't hesitate to contact our xRM1 Support
Back
Next
Cancel

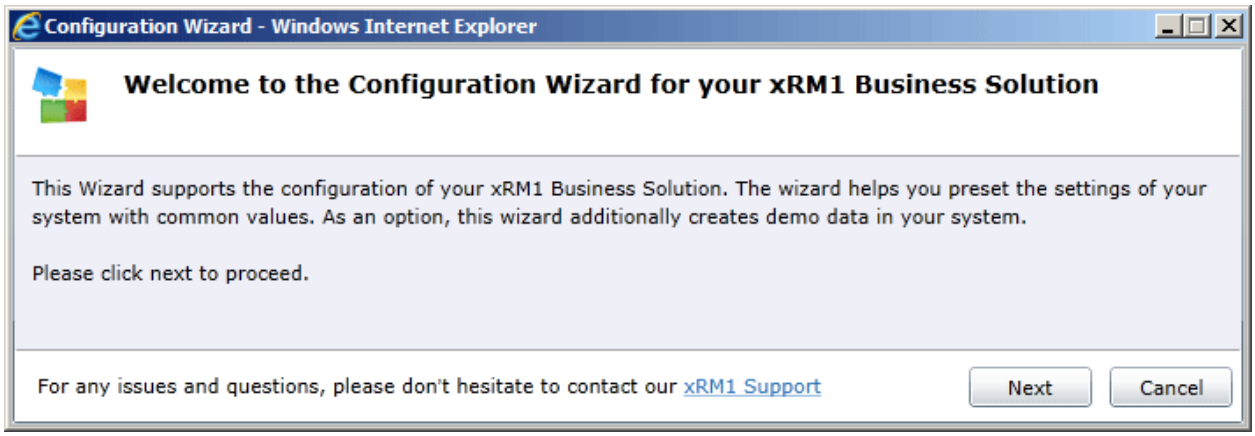
The next few steps are identical with steps 3 to 5, with free test licenses. Next, select whether you would like to implement standard settings and/or basic data/demo data. This will subsequently help to activate the license as well as complete the activation.

You can also request and upload your license through the xRM1 Configuration window. For more information, please see Section 15.1.1.

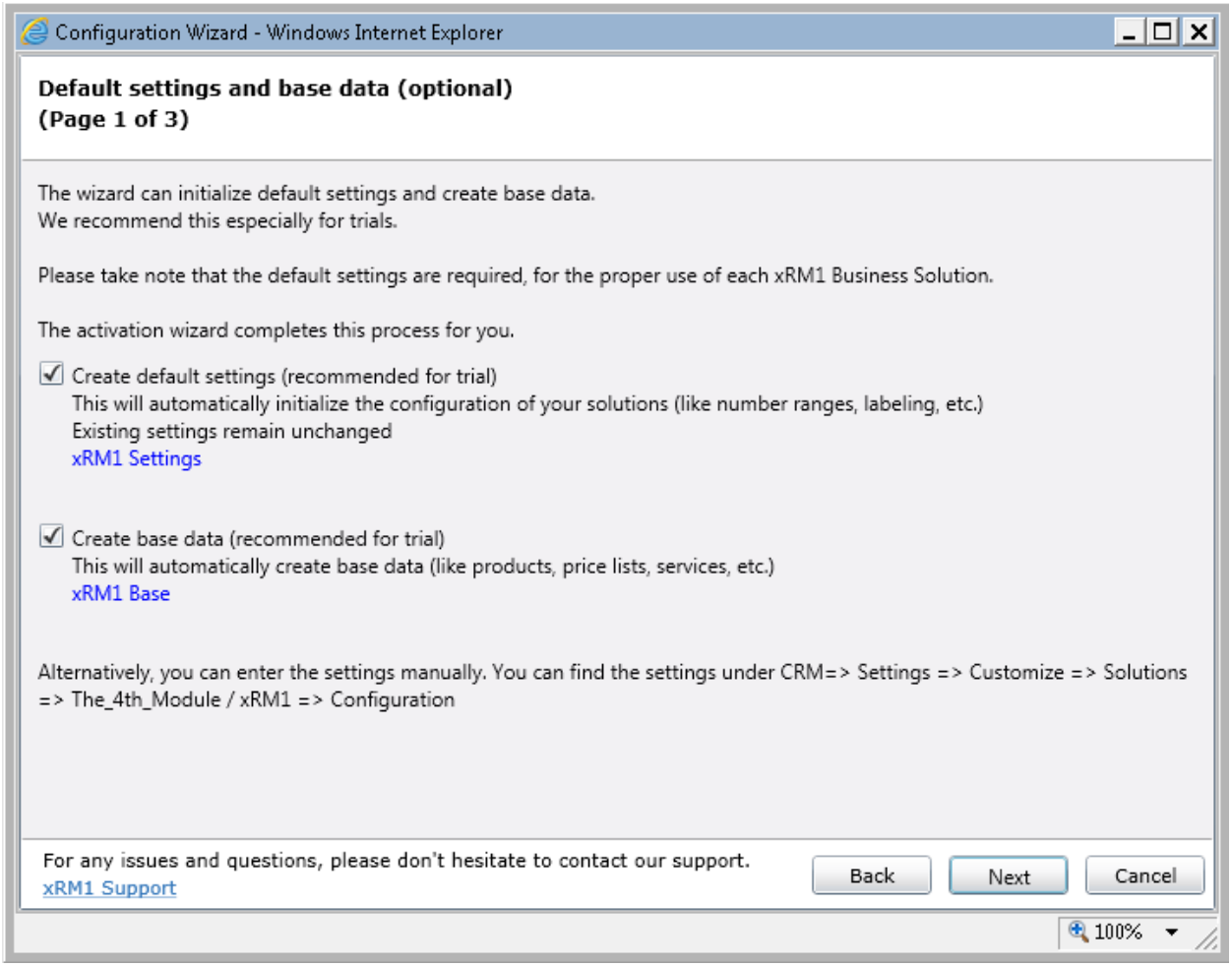
15.4 Configuring the Solution (Configuration Wizard)

The Configuration Wizard is a part of the Activation Wizard but can be run separately. This can be the case when basic data/demo data or settings will be created at later point in time.

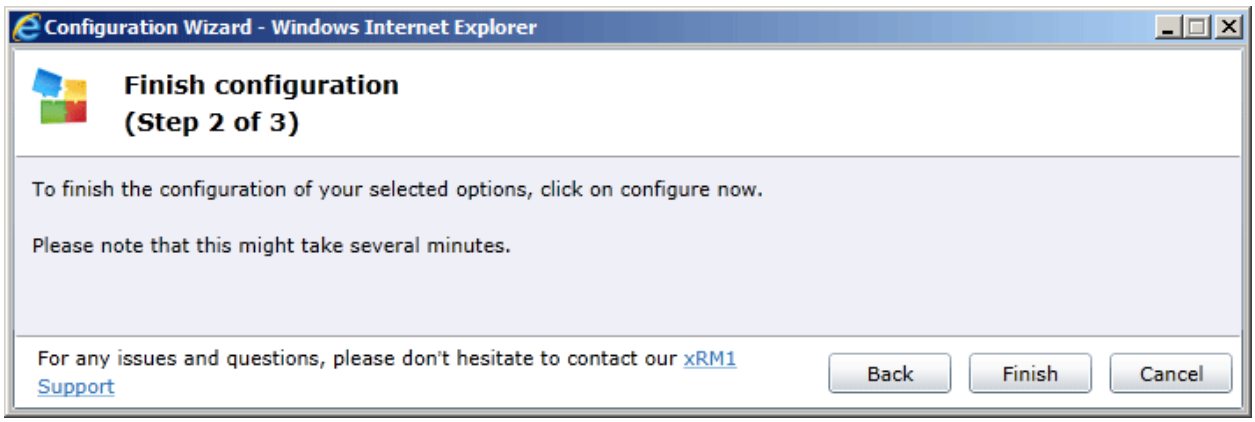
Note: *Using the Configuration Wizard will not overwrite any already existing data.*


Configuration Wizard - Windows Internet Explorer
Welcome to the Configuration Wizard for your xRM1 Business Solution
This Wizard supports the configuration of your xRM1 Business Solution. The wizard helps you preset the settings of your system with common values. As an option, this wizard additionally creates demo data in your system.
Please click next to proceed.
For any issues and questions, please don't hesitate to contact our xRM1 Support
Next
Cancel

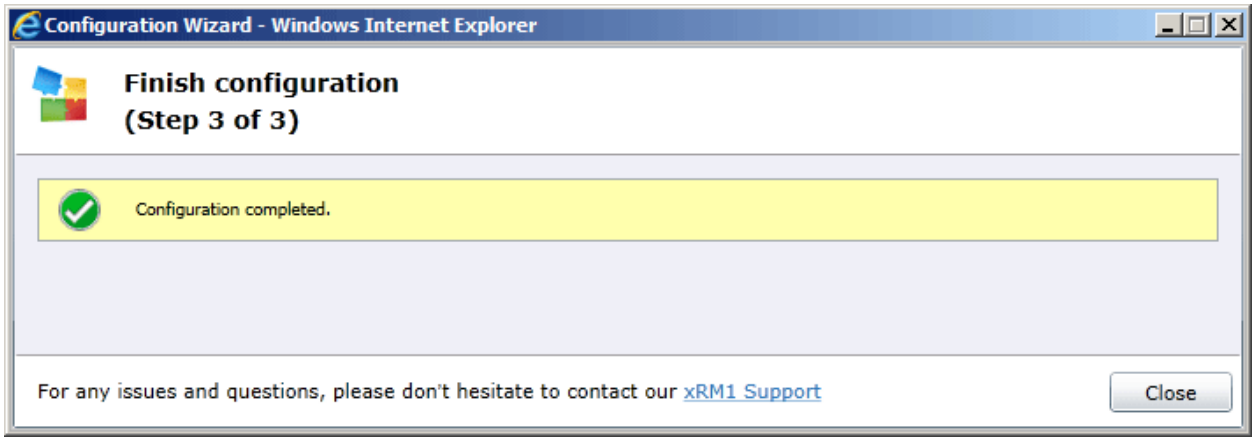
Here you have nooption to select whether you would like to activate a free test version, a temporary or a permanent license. Instead, one begins directly with selecting basic settings and/or base data.


Configuration Wizard - Windows Internet Explorer
Default settings and base data (optional)
(Page 1 of 3)
The wizard can initialize default settings and create base data.
We recommend this especially for trials.
Please take note that the default settings are required, for the proper use of each xRM1 Business Solution.
The activation wizard completes this process for you.
Create default settings (recommended for trial)
This will automatically initialize the configuration of your solutions (like number ranges, labeling, etc.)
Existing settings remain unchanged
xRM1 Settings
Create base data (recommended for trial)
This will automatically create base data (like products, price lists, services, etc.)
xRM1 Base
Alternatively, you can enter the settings manually. You can find the settings under CRM=> Settings => Customize => Solutions => The_4th_Module / xRM1 => Configuration
For any issues and questions, please don't hesitate to contact our support.
xRM1 Support
Back
Next
Cancel
100%

Then, confirm the selected configuration.


Configuration Wizard - Windows Internet Explorer
Finish configuration
(Step 2 of 3)
To finish the configuration of your selected options, click on configure now.
Please note that this might take several minutes.
For any issues and questions, please don't hesitate to contact our xRM1 Support
Back
Finish
Cancel

After the configuration is complete, the following window will appear:


Configuration Wizard - Windows Internet Explorer
Finish configuration
(Step 3 of 3)
Configuration completed.
For any issues and questions, please don't hesitate to contact our xRM1 Support
Close

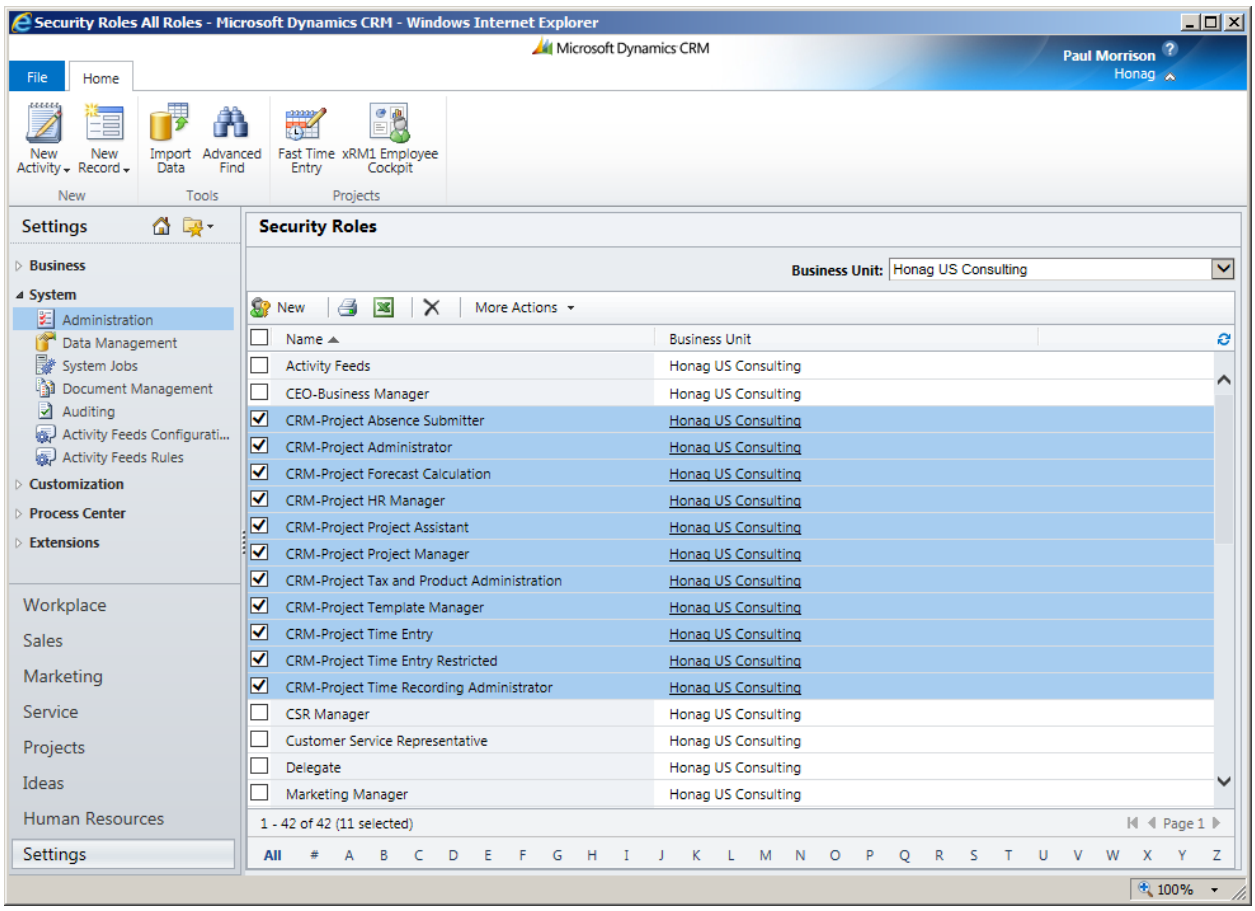
15.5 License management

For xRM1 Business Solutions every user requires a valid license. Once the license is assigned, the user is assigned to the appropriate security roles (according to the following table). This can be also set manually within the CRM user.

	CRM-Project License Type				
Security Role	***CRM-Project Employee***	***CRM-Project Standard Billing and Invoicing***	***CRM-Project Standard Resource Management***	***CRM-Project Professional***	***CRM-Project Enterprise***
CRM-Project Absence Submitter	x	x	x	x	x
CRM-Project HR Manager			x	x	x
CRM-Project Forecast Calculation	x	x	x	x	x
CRM-Project Project Assistant			x	x	x
CRM-Project Project Manager		x	x	x	x
CRM-Project Tax and Product Administration		x		x	x
CRM-Project Template Manager				x	x
CRM-Project Time Entry	x	x	x	x	x

15.6 Rights and Roles concept

CRM-Project uses the standard rights and roles concept of Microsoft CRM. The settings in the roles are used as basic settings and can be configured further to the specific requirements of your organization. Please refer to the Microsoft CRM standard customization documentation for detailed information on configuring security roles.



15.7 CRM-Project security roles

The following roles are provided in the delivered configuration:

15.7.1 CRM-Project Absence Submitter

All users which use user-related Absence Administration (requests for leave, compensatory leave), and who are affected by business closure, require this security role.

15.7.2 CRM-Project Administrator

This role is required for access to CRM-Project settings within the CRM-Project solution.

15.7.3 CRM-Project Forecast Calculation

This security role gives the user read and write access to all project fields related to forecast calculation.

15.7.4 CRM-Project HR Manager

This role is required to use Absence Administration in the Settings area and for viewing the personnel data of users.

15.7.5 CRM-Project Project Assistant

This role gives the user in the project read and write access to all internal information, all project management functions, and information on work (projected and entered).

15.7.6 CRM-Project Project Manager

Users with this role in projects are given additional insight into all monetary information and functions (such as billing). This security role contains all privileges of the "Project Assistant", too.

15.7.7 CRM-Project Tax and Product Administration

This security role gives the user read and write access to all relevant values relating to tax calculation.

15.7.8 CRM-Project Time Entry

This role is required to be able to record and enter services correctly in projects. This role also grants access to the fast time entry mask and work schedule functions.

15.7.9 CRM-Project Template Manager

This role is required to be able to administrate templates. Uses with this security role are able to change the state of active projects to "Template in Progress" and to use template functionality such as create, modify and approve of templates.

15.7.10 CRM-Project Time Entry Restricted

This role is required if a user's project access rights are to be limited. Users with this role only have access to projects that were assigned to them through the planning table.

15.7.11 CRM-Project Time Recording Administrator

This role is required to allow the calculation of projects, if the restriction of access rights by the role "CRM Project Time Entry Restricted" is used for some users.

Assign this role to any CRM-Project user which has access to all projects. In addition, you have to select this user on the configuration page of CRM-Project (see 15.1.5)by selecting "Global => Calculation" and choose the user as "Calculation User".

15.8 Restriction of CRM-Project security roles

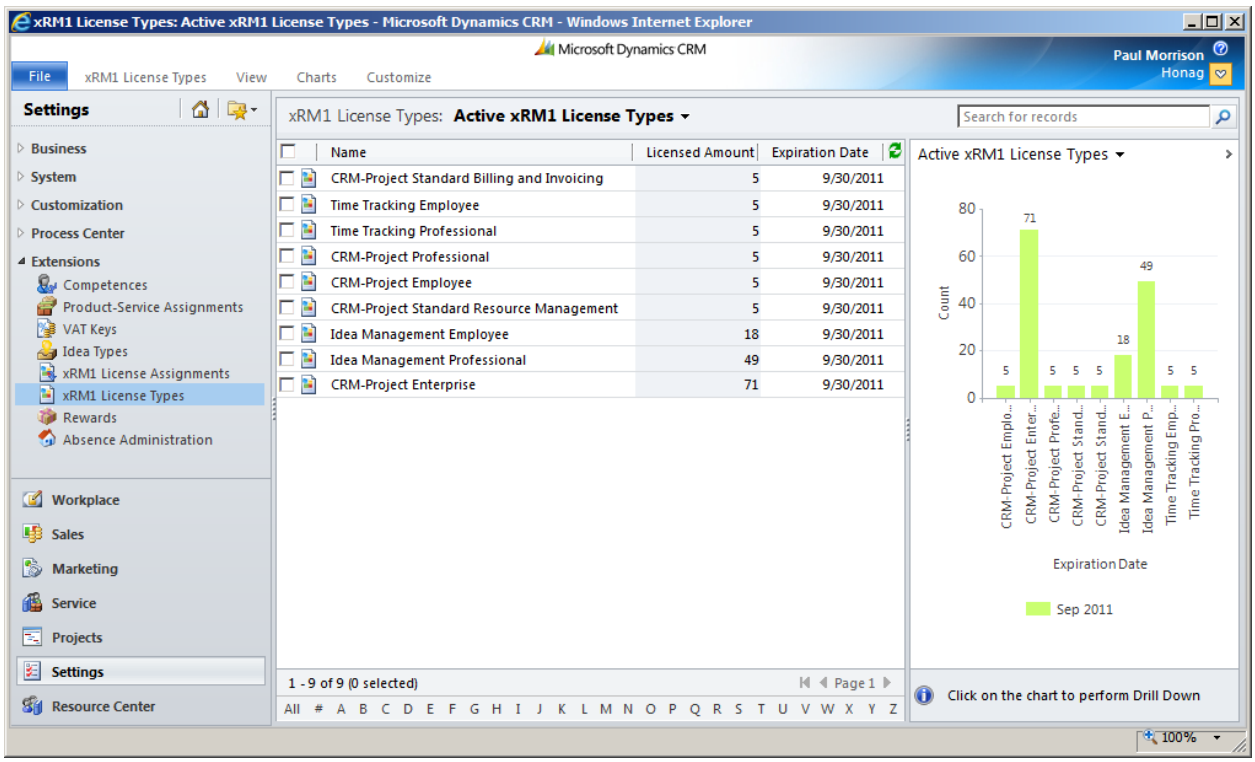
All employees may, by default, access all projects and enter services for all project nodes. The product is delivered with this setting. Please note the following if you like to restrict acces, and e.g. want to work with approvals:

- The user still requires the role "CRM-Project Time Entry" to use functions such as the fast time entry mask and the work schedule. Continue therefore to assign these roles to users and adjust the rights in this role.
- For the functions triggered by entering activities to be processed correctly, it may be required (depending on the project structure used) to publish a few plug-ins of the 4th module within Microsoft CRM under a different context. In the standard configuration, all plug-ins in the context of the current user are run. If this person no longer has the appropriate rights, it may be necessary to run the plug-ins under the context of a user with more rights (such as a Project Management Administration user).

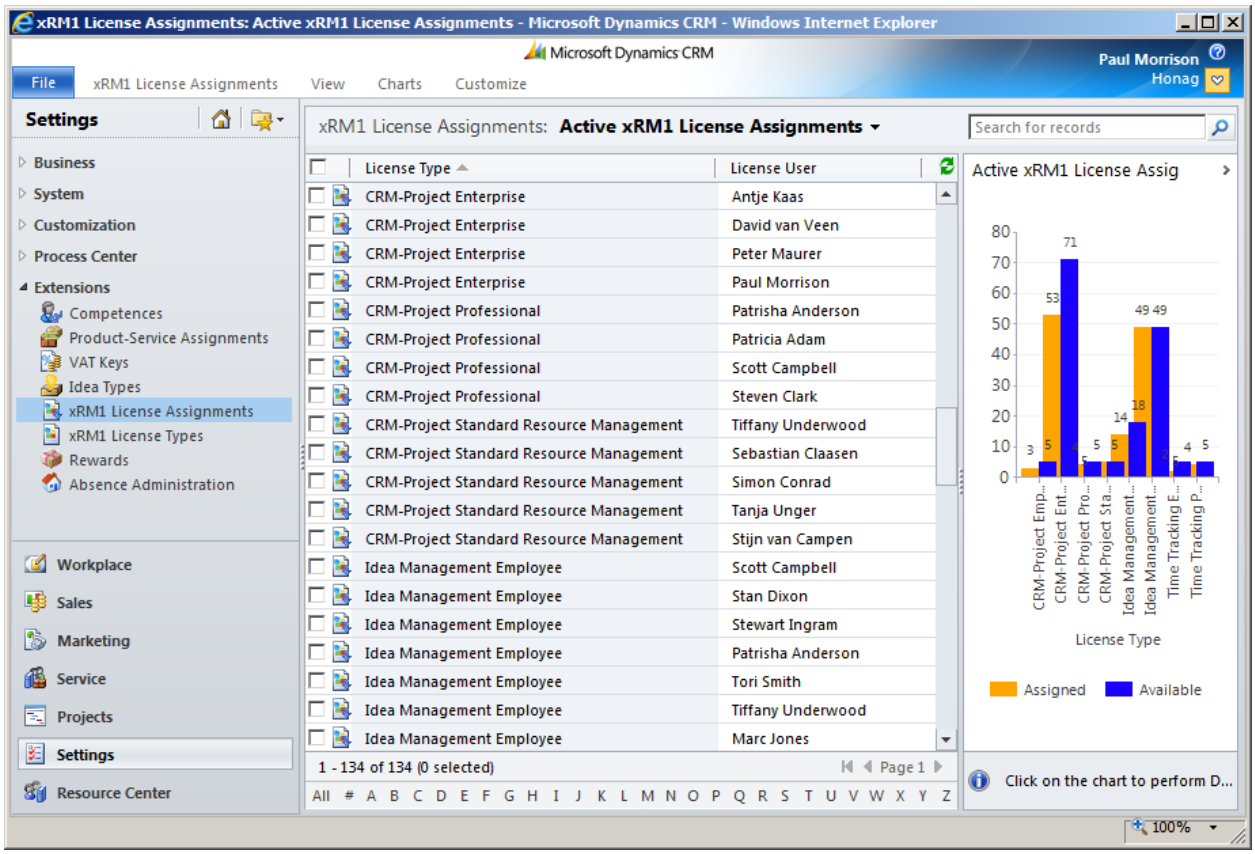
Tip: *Users with roles* ***CRM-Project Project Manager*** *and* ***CRM-Project Project Assistant*** *have by default full access to all projects. If the permissions within your organization require it, you are able to restrict these roles (e.g. full access to only some projects) and also to create an authorization role* ***"Overall project management"*** *or* ***"Program Manager"****. This role can then be assigned full access to all projects for example.*

15.9 License types and assigning licenses

Under 'Settings' --> 'xRM1 License Types', you will find an overview of the existing license types as well as their corresponding validity dates.

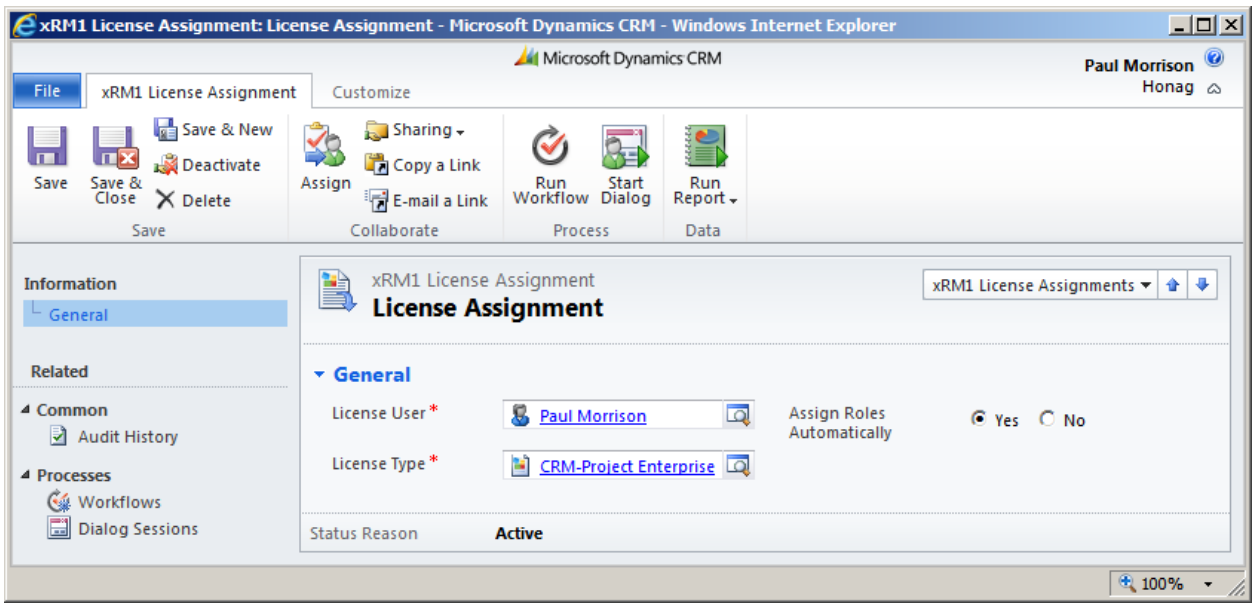


Under 'Settings' → 'License Assignments' a list of the current license assignments can be seen.



To assign a license to a user, select 'Settings' → 'License Assignments' and 'New', on the ribbon bar. In your open window, select the 'License User' and the 'License Type' that the specific user should have. We recommend assigning roles automatically.

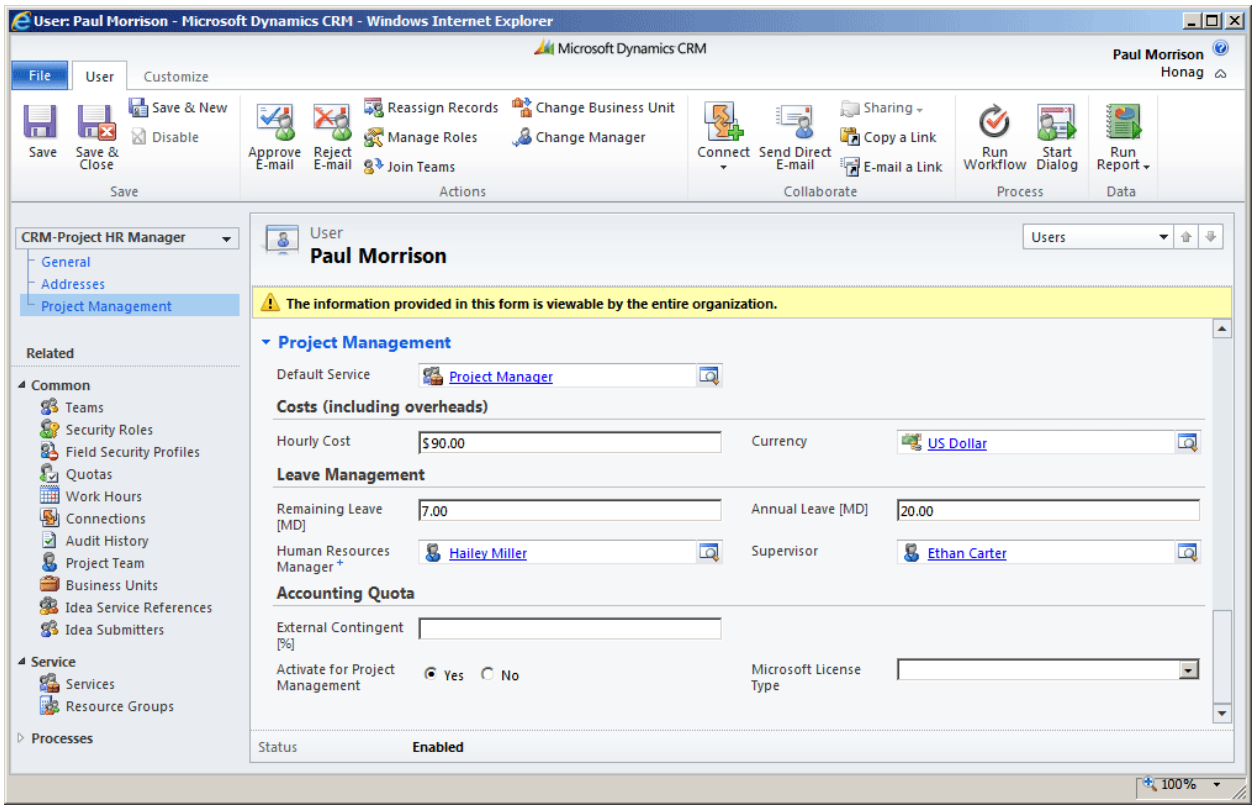
After saving and closing, the user is displayed with the newly assigned license from the list of active allocated licenses.


xRM1 License Assignment: License Assignment - Microsoft Dynamics CRM - Windows Internet Explorer
Microsoft Dynamics CRM
Paul Morrison
Honag
File
xRM1 License Assignment
Customize
Save
Save & Close
Save & New
Deactivate
Delete
Assign
Sharing
Copy a Link
E-mail a Link
Run Workflow
Start Dialog
Run Report
Save
Collaborate
Process
Data
Information
General
Related
Common
Audit History
Processes
Workflows
Dialog Sessions
xRM1 License Assignment
License Assignment
xRM1 License Assignments
General
License User *
Paul Morrison
License Type *
CRM-Project Enterprise
Assign Roles Automatically
Yes
No
Status Reason
Active
100%

16 Additional configurations and customizations

16.1 Personnel data of users

For CRM-Project to be able to bill the costs in a project correctly, the hourly rates of all Microsoft CRM users working in projects must be stored in the CRM system.



***NOTE**: To configure these settings, you required security role CRM-Project HR Manager. Otherwise you are not granted access to the personnel data of users. Please be aware that you have switched to the "CRM-Project HR Manager" form.*

It is furthermore required for resource planning that the fields "Remaining leave", "Annual leave", and the HR Manager in the "Leave Management" area, as well as the manager in the "General" area, are correctly filled.

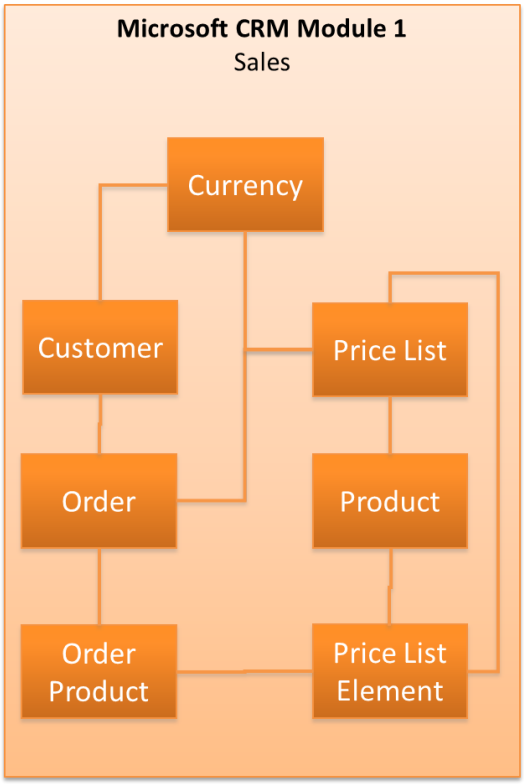
For users only rendering (mainly) one service, this service should be defined as the default service for the user.

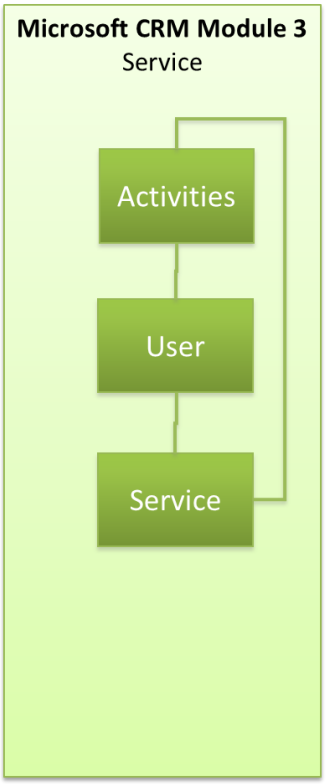
16.2 Connection of services and products

As the 4th module, CRM-Project is always based on the standards on Microsoft CRM.

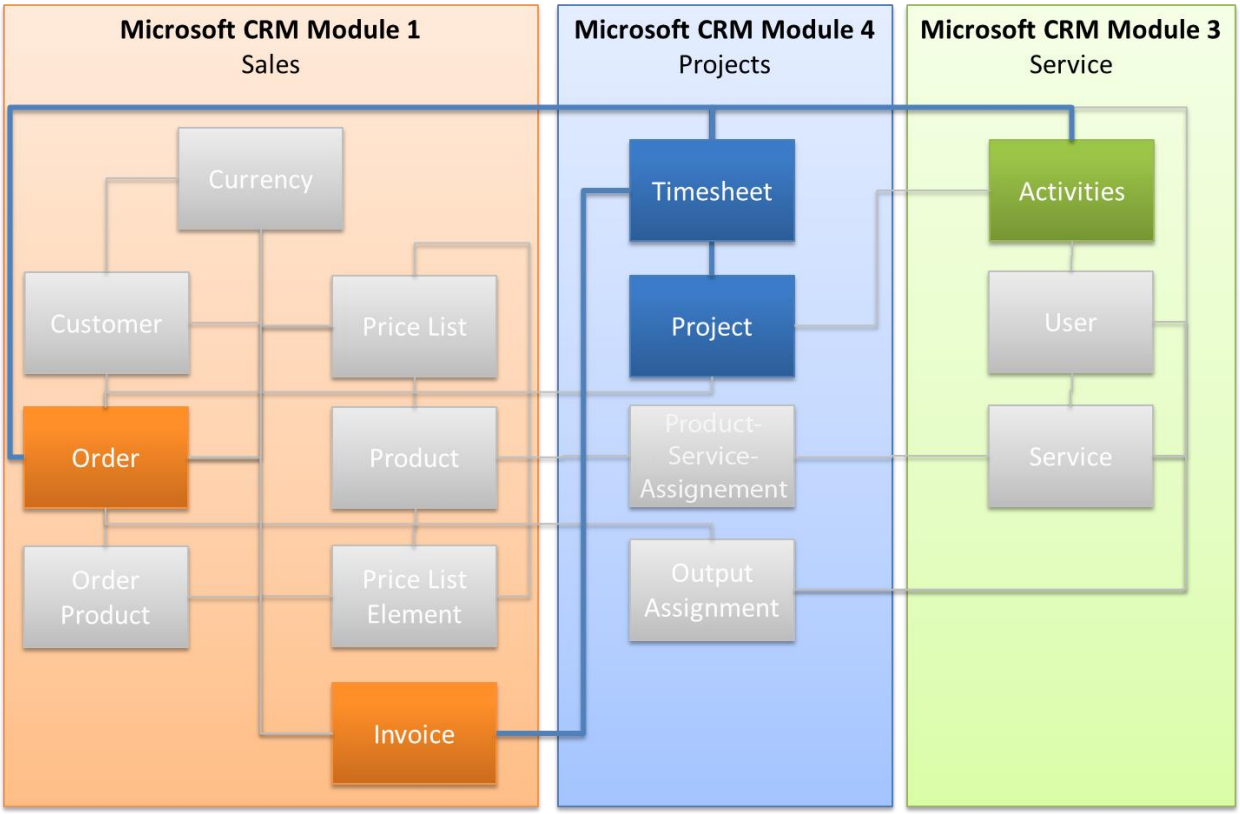
Services in Microsoft CRM define the work entered by employees. CRM-Project uses this methodology. In addition to a default service, the service which an employee renders can be defined within an order belonging to the project . Even the selection of the service for every activity is possible.

For orders assigned to projects, the 4th module uses the full default functionality of the 1st Module (Sales) which mainly contains products, price lists, orders, etc.

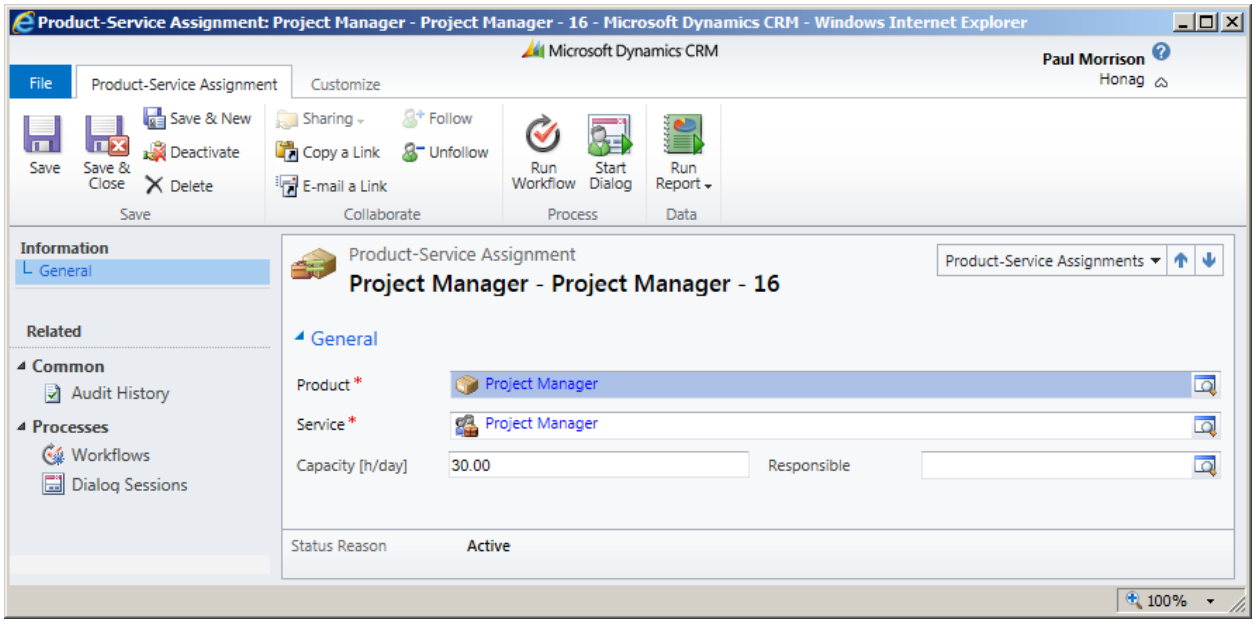




To be able to create an invoice, a connection needs to be established between the services and the products to specify which service with which product (or price in the order in question) is used to invoice the customer.



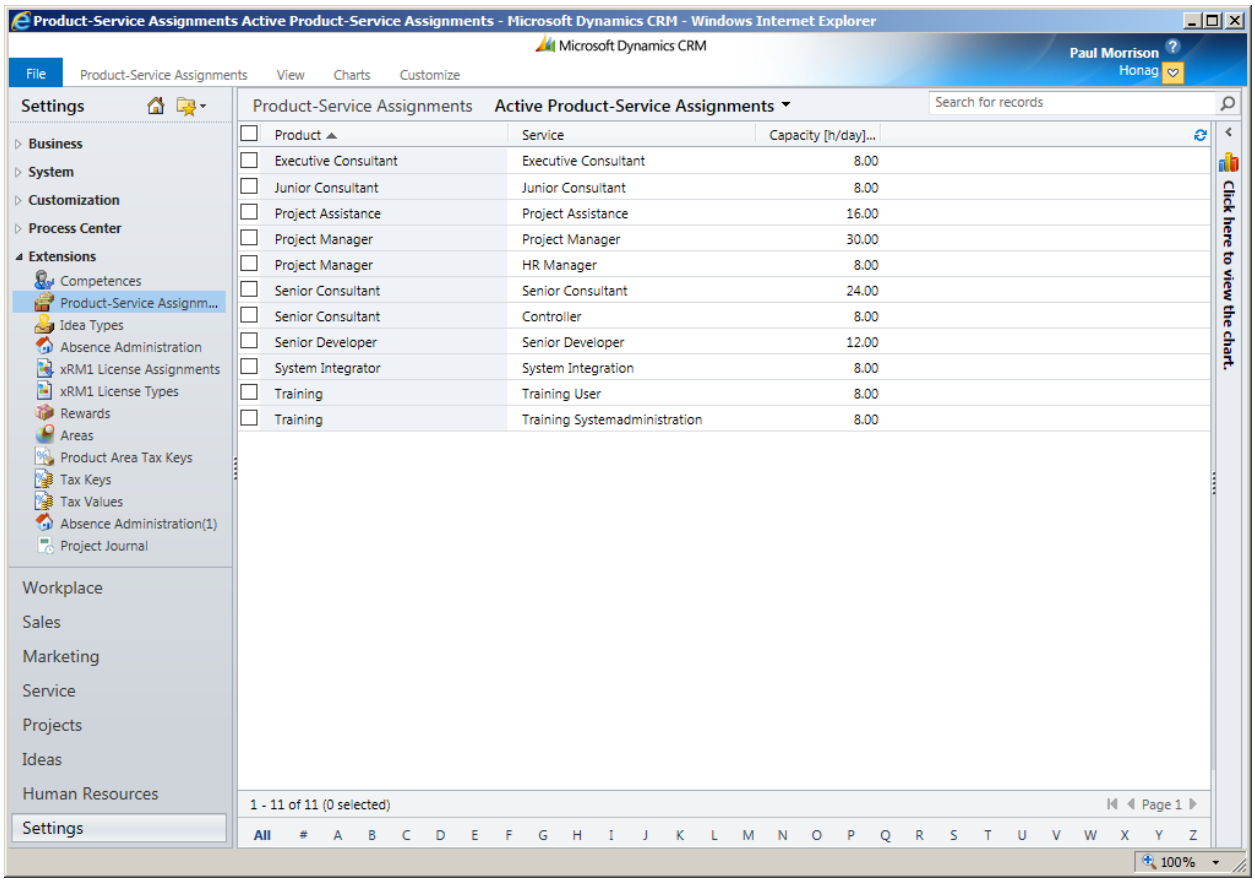
This connection is provided by entity **"Product-Service Assignment"**. It enables the unique assignment of one service to one product and also multiple services to one product; for example, when in your organization the product "Programming" is sold to customers, but you work with services **"Programming Java"**, **"Programming PHP"**, and **"Programming C++"** for accurate internal planning.



Thus, for all services used that you wish to invoice in customer projects, create a product in the product list and assign to the product relevant prices across one or more price list(s). Please refer to the standard user documentation of Microsoft CRM for details on creating services, products, and price lists. Finally, create for all these services and products the necessary relationships under **Product-Service Assignment**.

Note: *Please pay attention regarding the setting for the value "Quantity Selling Option" when creating new records in CRM price list items, for products that should be billed by the CRM-Project billing function. The value has to be set*

*to "**Whole"** or **"Whole and Fractional"**. If the value is set to **"No Control"**, it will not be possible to make a fractional billing of the services in the project.*



***Note:** Assigning multiple products to one and the same service is not permitted because otherwise the application logic of CRM-Project cannot perform a unique assignment of a rendered service to one product. To guarantee this, we recommend for a very long list of services and/or products the use of a duplicate detection for the Product-Service Assignment entity.*

16.3 Behavior for relationships

Because CRM-Project is built upon Microsoft Dynamics CRM activities, there are influences on the behavior between products and the associated activities on the basis of defined relationships. The relationship between all activity types (appointment, task, phone call, etc.) and the CRM-Project project entity is set by default in the delivered configuration as follows:

- Assign: Cascade None
- Share: Cascade All
- Unshare: Cascade All
- Reparent: Cascade None

This setting is a recommendation from a multitude of customer installations. If you require a different setting for your installation, make the change at any time in the Customizing area of Microsoft CRM.

We recommend this setting (especially in regard to assigning project nodes to other Project Managers) as otherwise the owner context for all activities is transferred to the newly defined Project Manager.

***Note:** The behavior of relationships has changed in Version 4.6. If you want to continue using the previous configuration, you can reset it using the customizing functionality of the CRM system.*

16.4 Flagging own accounts

The account for which the project is being run is used by CRM-Project to differentiate between internal and external projects.

Create the relevant companies in Microsoft CRM for all your own and associated companies and cooperation partners. **"Own Business"** enables you to define individually for every account whether or not this is a business within your own organization. It is always set to **"No"** by default.

So if in the project you select in lookup field **"Account"** a business for which **"Own Business"** is set to **"Yes"**, CRM-Project classifies this project as an **"internal project"**. For accounts for which it is set to **"No"**, the project is an **"external project"**.

16.5 Customizing Employee Cockpit Mask

The Employee Cockpit mask can be customized according to your individual needs. The following adjustments can be done through standard Microsoft customizing tools:

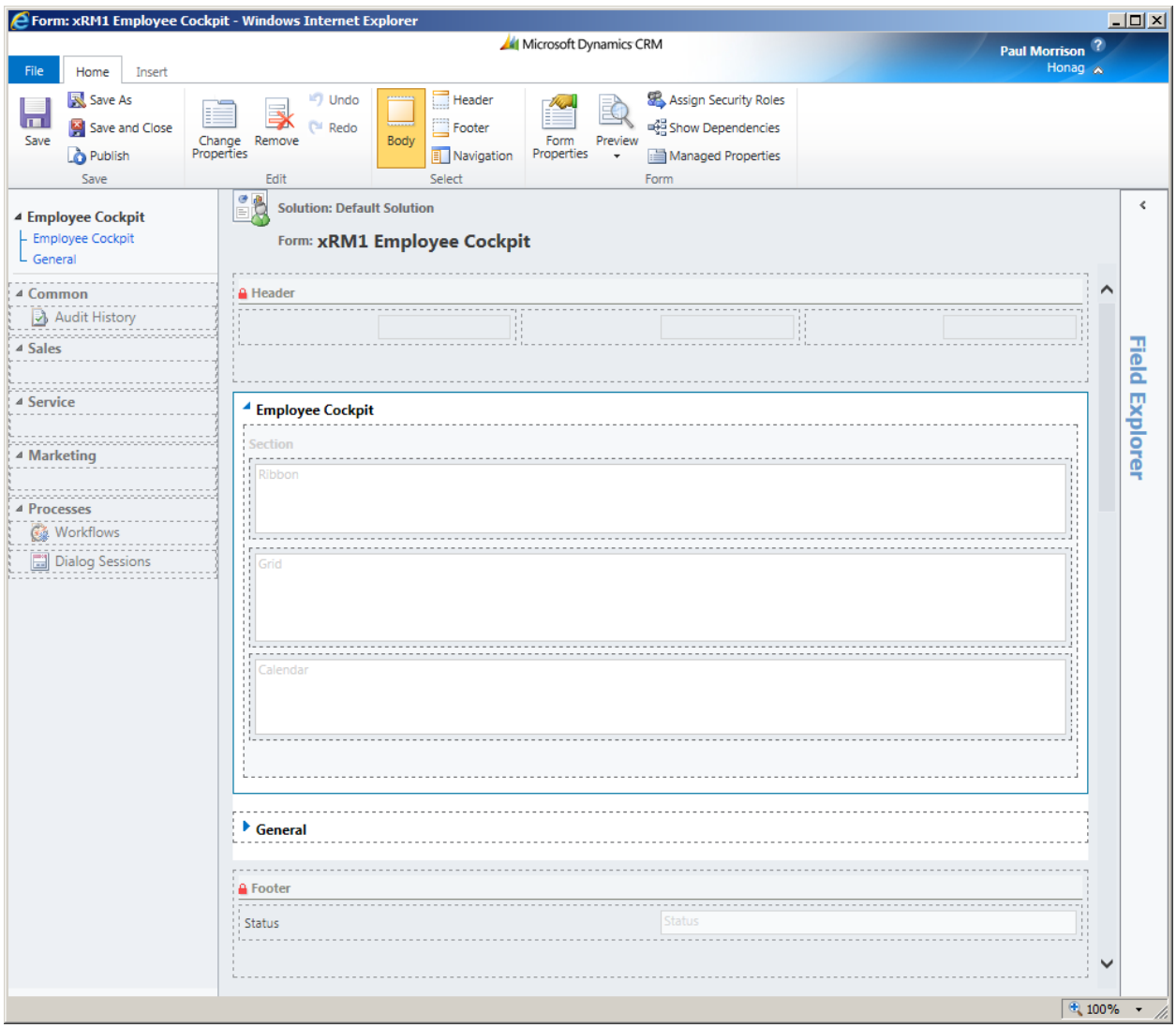
- Grids and views can be modified.
- New elements (iFrames) can be added.
- Columns in the table grid can be added, removed or rearranged.

Please be aware that the appropriate security role is required (***"System Administrator"*** or ***"System Customizer"***).

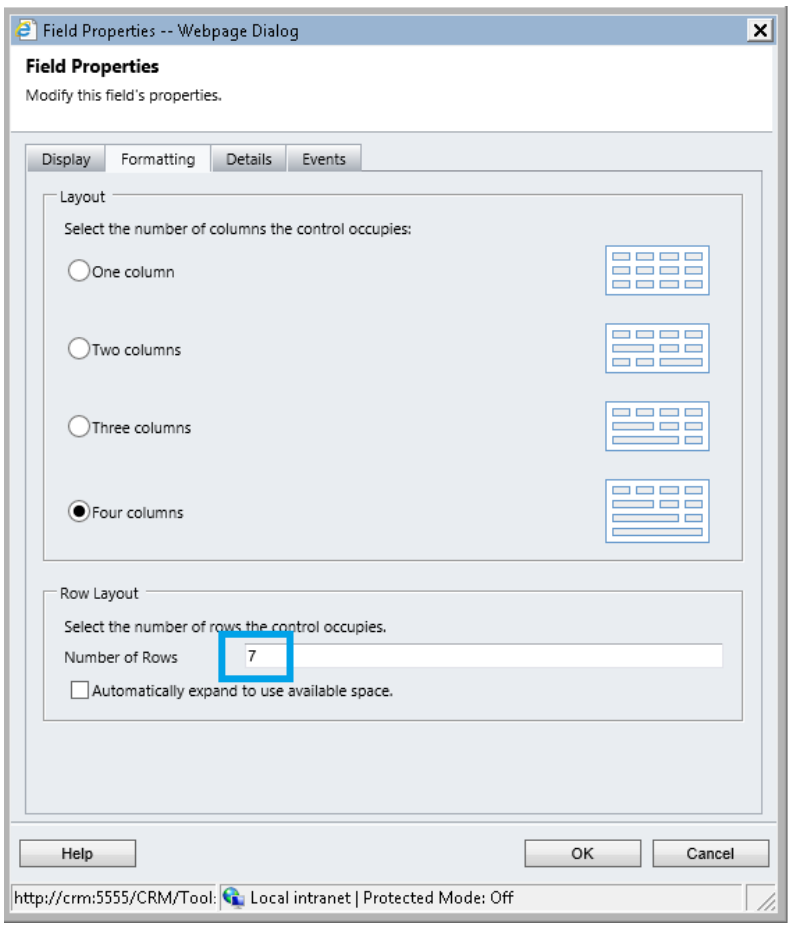
16.5.1 Modifying grids and views

To customize the Employee Cockpit grids and views, go to Setting=>Customizations=>Customize the System.

Find the "xRM1 Employee Cockpit" entity and click on the "Employee Cockpit" form.



The three "Ribbon", "Grid" and "Calendar" areas are now displayed. They correspond to the relevant areas in the Employee Cockpit. You can replace or remove the elements by using standard CRM customizing functions. To change the size of an area, click on the applicable element, go to the tab "Formatting" and then to "Row Layout". Change the amount of rows and, as a result, the size of the element will also increase or decrease.



16.5.2 Add new elements

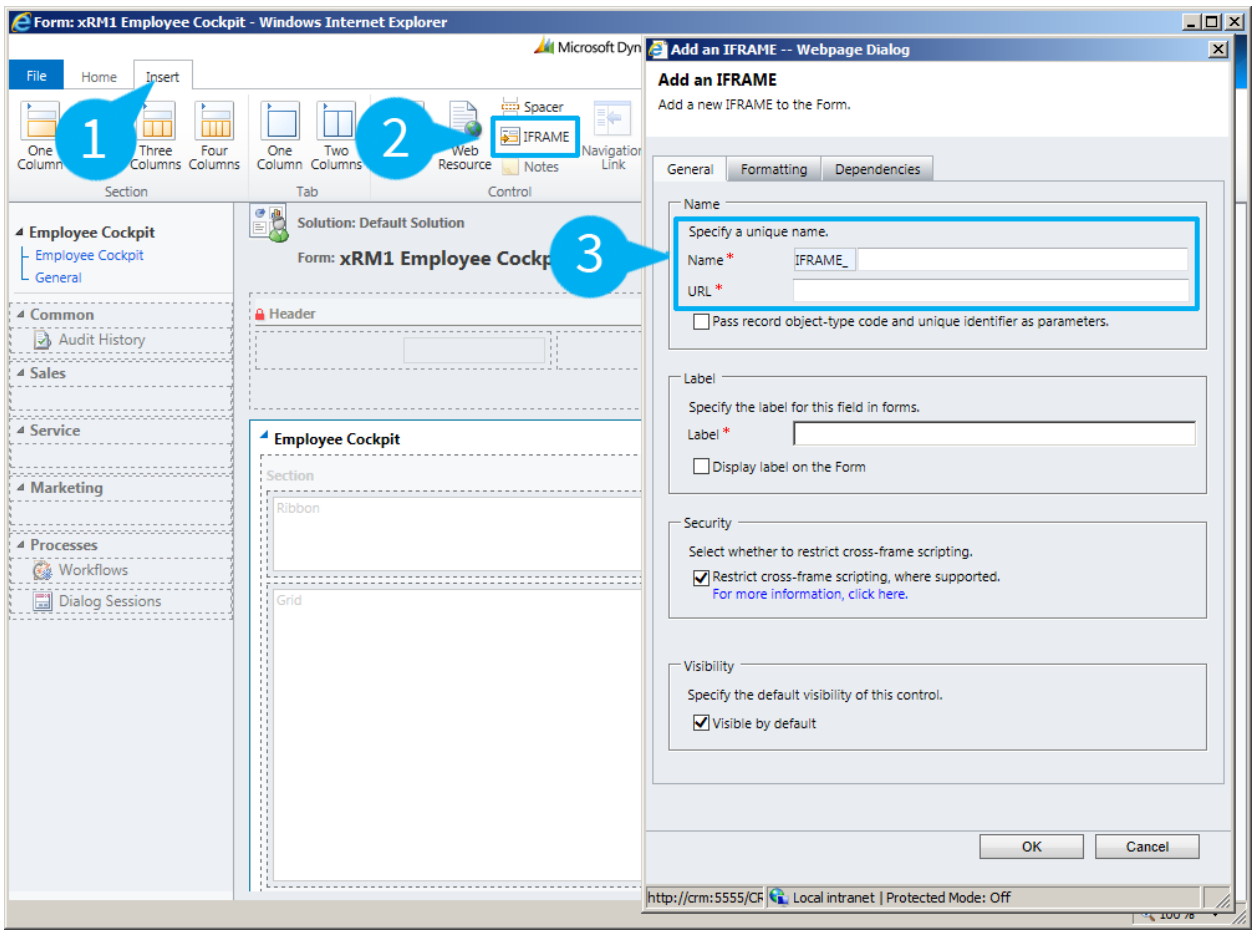
You can also add additional elements (iFrames) to the Employee Cockpit. To do this, use the "insert" tab in the Employee Cockpit form.

it is necessary to know the parameters of the iFrame, such as the iFrame-name and URL.

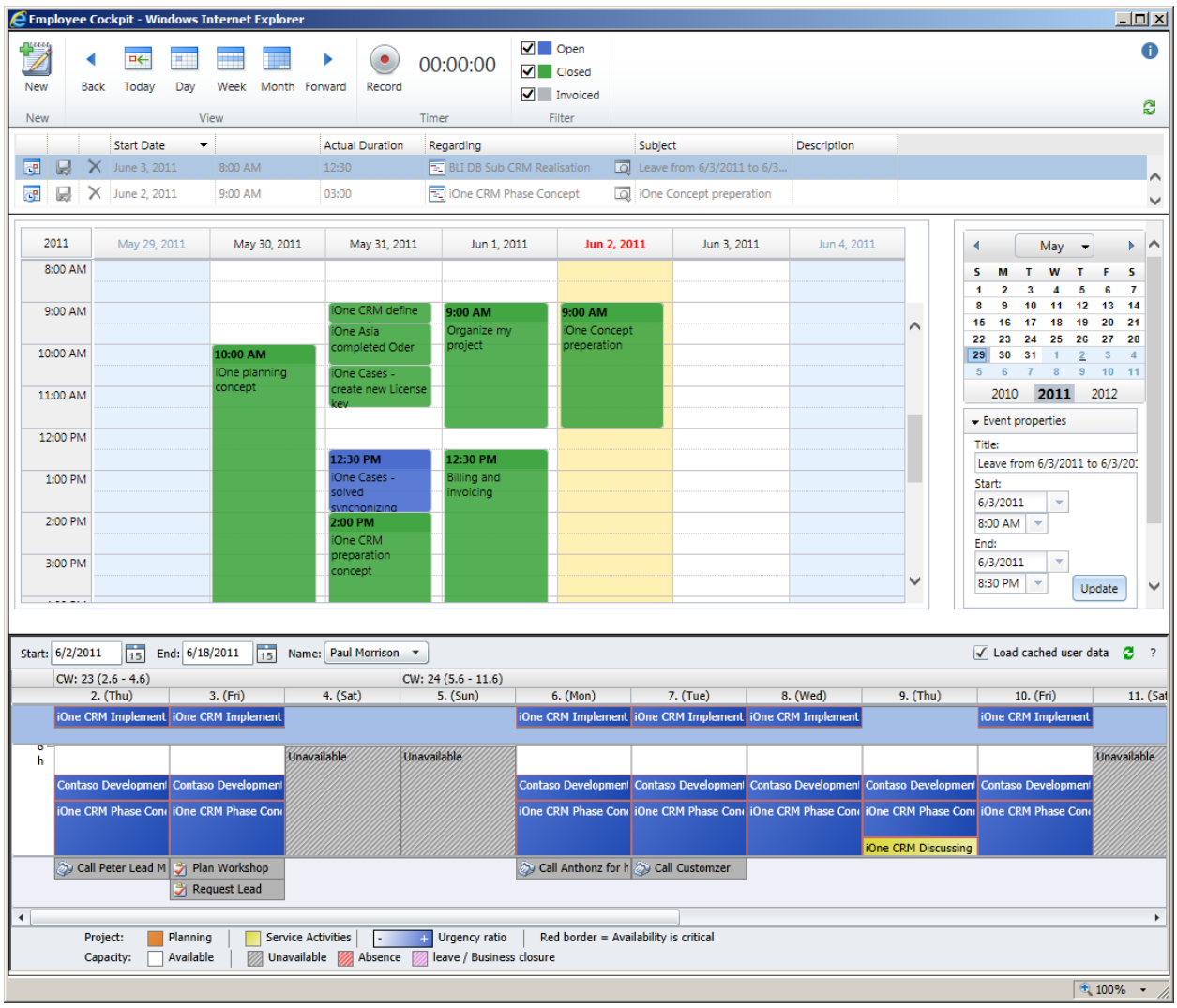
For example, you can add the Work Schedule as a new iFrame. Use the following parameters:

IFRAME_:xrm1_work_schedule

URL: http://crm:5555/CRM/WebResources/itarapro_/web/PersonalWorkSchedule.html?userlcid=1033

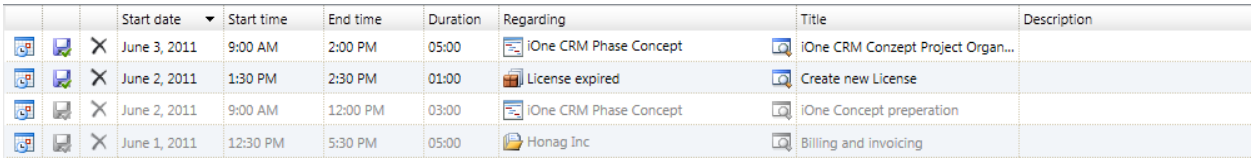


After saving and publishing, the following result is shown:



16.5.3 Add, remove or rearrange columns in the table grid

You can also rearrange, add or remove the columns in the table grid:



To do this, go to Settings => Customizations => Customize the System => Activity => Views => Inactive Public Views and then select the "xRM1 Employee Cockpit Grid". Now you can add, remove or rearrange the columns through standard Microsoft customizing functions.

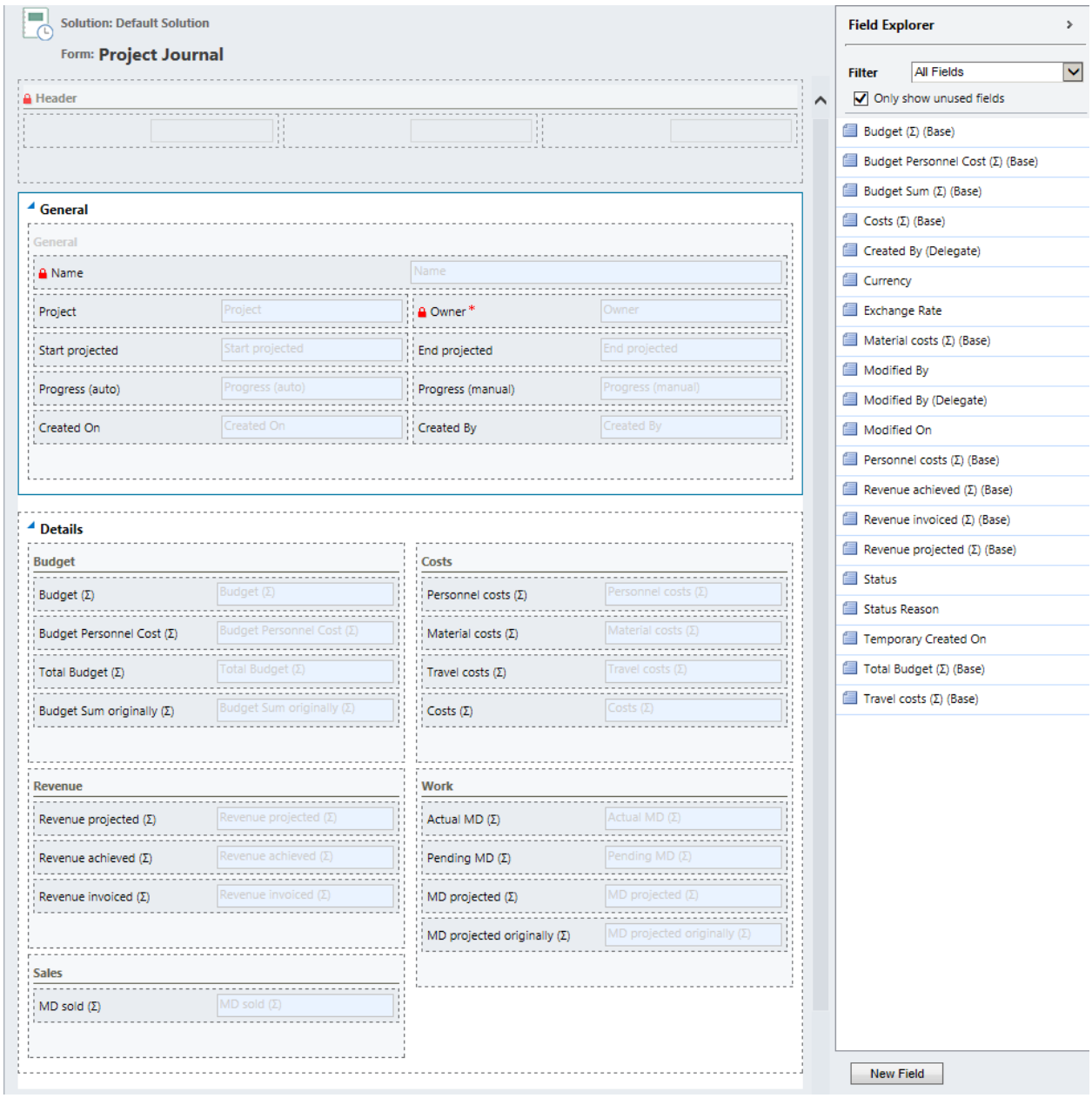
16.6 Configure Project Journal

The values used for the Project Journal Charts (see section 0), are saved in the "Project Journal" entity and are recorded by the "Create Journal Entity" workflow.

You can customize the charts and extend or modify the saved values according to your needs. Settings are adjusted via standard Microsoft CRM customizing.

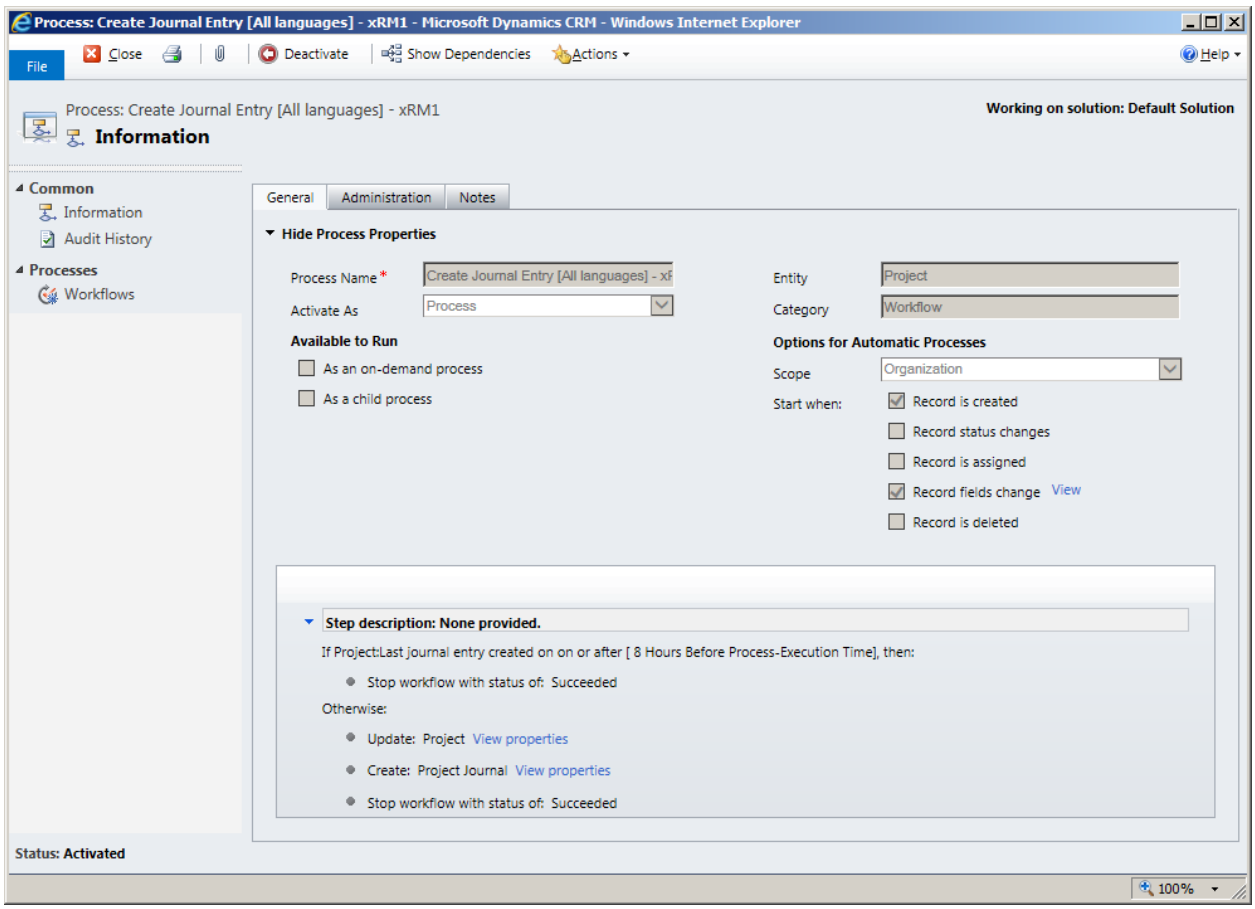
To perform changes, go to Setting s=> Customizations => Customize the System. Find the "Project Journal" entity and click on the "Main" form.

You can see the following fields and values, which correspond to the standard values in the "Budget, "Costs", "Revenue" and "Work" charts.

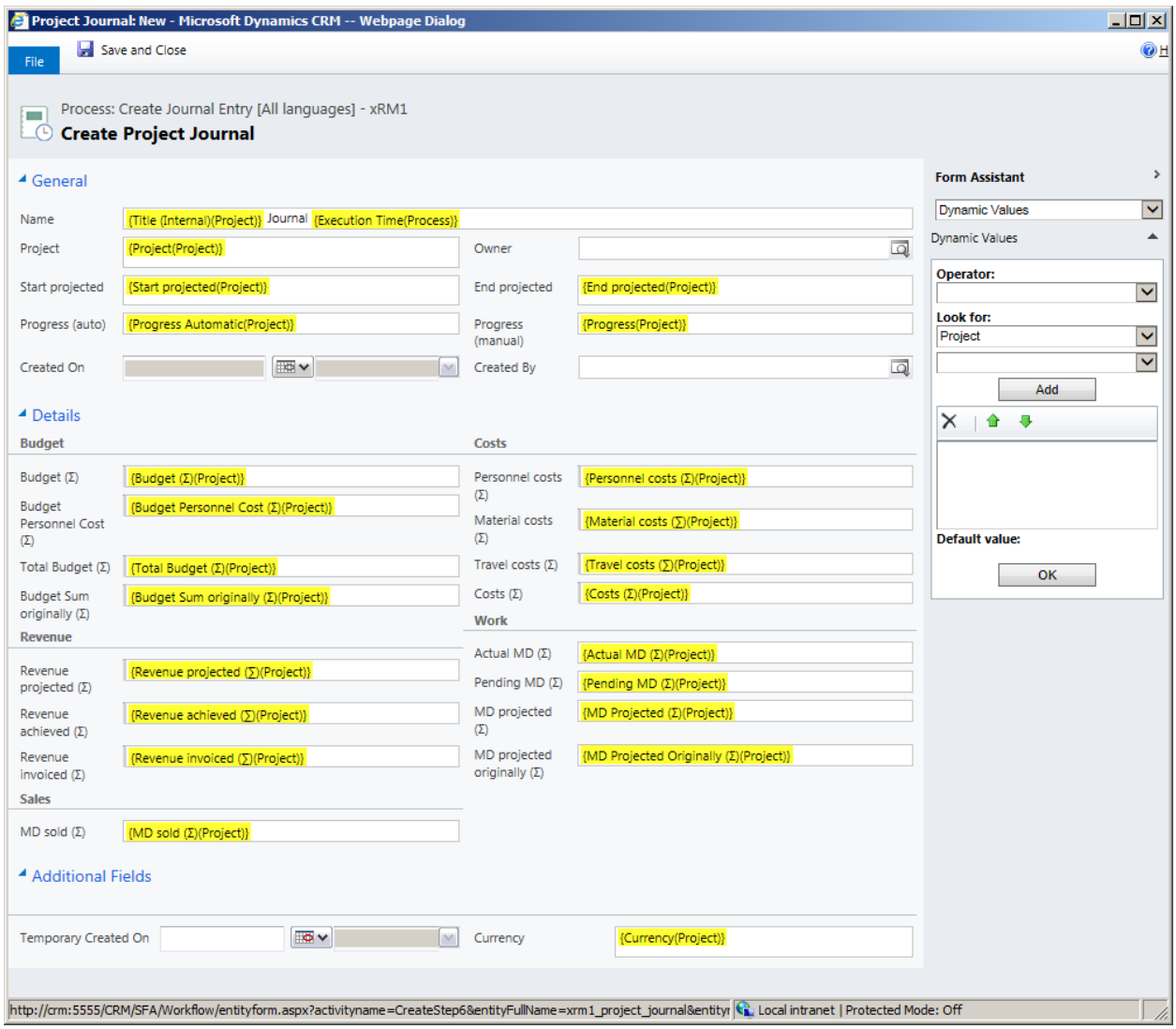


You can add additional data types and fields through standard CRM processes.

To adjust the time interval for data recording or trigger for updates, simply modify the “Create Journal Entity” workflow configuration.



The standard value for the update interval is 8 hours. This means: every time a defined value has been changed and the time period of the last update is longer than 8 hours, a new Project Journal record will be created and appear in the chart.



Additionally, the date and time of the last update is saved in the project field.